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COMPETITIVENESS AND ANTITRUST

HEARINGS

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

MODIFICATIONS OF ANTITRUST LAW OR ENFORCEMENT POLICIES WITH RESPECT TO DISTRESSED INDUSTRIES

MAY 6 AND 7, 1987

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COMPETITIVENESS AND ANTITRUST

WEDNESDAY, MAY 6, 1987

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The committee met, pursuant to notice, at 10:40 a.m., in room SD-226, Dirksen Senate Office Building, Hon. Joseph R. Biden, Jr. (chairman of the committee) presiding.

Also present: Senators Metzenbaum, Specter, Thurmond, Humphrey, and Grassley.

OPENING STATEMENT OF SENATOR HOWARD M. METZENBAUM

Senator METZENBAUM. The hearing will come to order.

Senator Biden is on his way over here. The reason for the delay is there is a meeting or the Foreign Relations Committee. The Labor and Human Resources Committee could not get a quorum because of that meeting. Senator Biden could not be here because of that meeting. I am going to have to leave for the Labor and Human Resources Committee, but Senator Biden is going to get here so I thought in the interest of time we might start.

The hearing today deals with a fundamental issue of national economic policy—how do the antitrust laws affect the international competitiveness of our basic industries? Our particular concern today is one of our most vital industries, steel.

It is appropriate to examine how the antitrust laws affect the steel industry, but it is also clear that our concern about this industry extends far beyond this narrow question. We owe it to this industry to undertake a broad examination of our national policies affecting steel production. We need to ask how can we make this industry a world leader once again, able to compete with any firm in any country.

As I see it, there are only two alternative futures for the steel industry. One is continued unemployment and new bankruptcies, until America finally has no steel industry at all. That is a totally unacceptable road to travel. The other is a cooperative effort by Federal and State Governments, the steel companies and their workers to transform this industry into one that can compete with the Japanese, the Koreans or anyone else.

The first alternative, as I previously stated, is simply unacceptable. To those who say let the steel industry disappear, I say no modern super power can possibly afford to do that. If we did not have a steel industry in this country, we could not be a super power. We could not have the military strength that we have. We must have a viable, strong steel industry if we are to maintain our

national security. There is no alternative. We must have a viable steel industry if we are to insure the survival of the thousands of workers, communities and other industries who depend on it.

I am frank to say, as I sit here this morning, I do not have all the answers as to how we make the steel industry competitive, but I do believe this: I believe it can be done. I believe that America's innovativeness, America's industrialness, America's determination to be first can make it possible to move forward in the whole area of reestablishing the steel industry without undermining our basic national policy of free competition. An essential objective must be to help the industry become more efficient. We cannot compete in a world of the 1980s with a technology of the 1950s, and we cannot compete if our steel plants operate at 30 and 40 and 50 percent of capacity.

We should explore the possibility that our steel companies can reduce costs through specialization, through achieving greater economies of scale, through formation of joint ventures or through joint research efforts.

Senator Thurmond and I joined together several years ago to make it possible to have joint research efforts in the whole field of electronics, and that bill passed the United States Senate after we worked on it for about a year. It took the best out of both of us in order to try to figure out a way to make that possible without at the same time undermining our antitrust laws.

The antitrust laws today allow a wide range of activities by members of an industry if it can be shown that they help, not hurt, competition. We can thoughtfully reexamine our antitrust laws, but I believe these laws are not the problem.

The problems faced by this industry are much deeper, much more serious than that. Ultimately, I believe the Congress, the White House, the steel companies, and the steel workers must make a joint commitment to achieve a viable, competitive steel industry in the 1990s. That commitment is going to require give and take on all sides, and such a joint undertaking is not easy. It may not be inexpensive, but I am convinced it is essential.

And this Senator is prepared to put his own background in the business world, my own concern about the kind of economy we have in this Nation, into the play in order to see whether or not I can be helpful in bringing out some solutions, because although I may have some reservations and some concerns about what has been done in yesteryear, I do not think that is really the question. I think the real question is what can we do about tomorrow, because we cannot afford to let the steel industry of America go down the drain.

Senator Thurmond, I am happy to have you here this morning.

Senator THURMOND. Thank you very much, Mr. Chairman.

Mr. Chairman, I want to congratulate you and Chairman Biden for getting this committee into the role of antitrust policy. I repeat, I want to congratulate you and Chairman Biden.

In the foreign trade situation facing our Nation, this is a vital policy question that deserves considerable attention. This question and related issues have been under consideration in Congress, in this committee, and in the executive departments for several years, and this dialogue should be continued.

In these hearings, Mr. Chairman, you will again hear about several administration proposals for antitrust reform. The committee conducted a number of hearings on them last year, as you know, and you may find some merit in them at the end of this inquiry. The trends in international trade and world markets are not sudden developments. They have been a source of concern and policy debate for some time.

In 1986, an administration working group sifted through many proposals with a view toward the impact of antitrust laws on U.S. competitiveness. One of that group's proposals was to codify the modern merger law standards actually being applied today and the major purposes of that proposal are to insure the recognition of foreign competition facing merging companies and to take into consideration the positive efficiency gains to be derived from mergers.

I believe that some of the witnesses will be discussing this proposal. While revision of the merger law is said to be nothing close to a cure for America's trade problems, I believe you will find a modest and reasonable proposal which is likely to help domestic industry and consumers.

Again, Mr. Chairman, I want to commend you for exploring these issues and for keeping the dialogue going. I expect that we will find antitrust is not the sole or even a primary reason for the American foreign trade position, but there are certain changes in antitrust which would be productive.

Thank you, Mr. Chairman.

The CHAIRMAN [presiding]. Thank you.

I apologize to you, Senator, and to my colleagues and particularly to the witnesses. I am the second-ranking member on the Foreign Relations Committee. We have been debating for weeks and months now on the so-called ABM Treaty, and I have a major piece of legislation on which, I was told, if we just showed up at 5 after 10 we would get a quick vote. Senator Helms and I got into a mild parliamentary discussion, and I was unable to leave. Ultimately we were able to have a vote, and we prevailed.

I have a brief opening statement, and I will then go directly to the witnesses. I thank them for their patience.

Needless to say, I am pleased to welcome members of the committee and the witnesses today, the first of two days of hearings to examine whether antitrust laws and antitrust enforcement policies should be modified to enhance competitiveness of American firms.

As ranking member and former chairman and still my chairman of this committee, Senator Thurmond pointed out, he did some very good work in this area in the last Congress, and I think and hope we can continue it. This subject could not in my mind be more timely. There are abundant signs that America sorely needs to get its economy moving again.

Since 1980, the Nation's gross national product has grown at less than 2.5 percent per year, the slowest growth rate of any decade since the 1930's. Productivity growth is at a virtual standstill. Many regions of this country are suffering near-depression hardships, and the dollar has been in close to a free fall of late, causing interest rates to increase sharply and raising anew the twin evils of recession and inflation.

I find the problems facing our economy over the longer run especially disturbing. Due to our rising trade deficits, the United States has gone in just 6 years from being the world's largest creditor Nation to the largest debtor—and you all know this, but I find it startling. Even if the trade deficit should shrink substantially from its 1986 record of $170 billion, most economists expect that by 1990, America will have a net debt to foreign creditors of more than $500 billion.

Just to pay the interest on this debt may require American exporters to ship $50 billion in goods abroad each year—goods that Americans will be unable to purchase for themselves. Erasing the $170 billion trade deficit will require even greater efforts by American exporters than are already under way.

Other nations—especially Germany and Japan—will have to meet their global responsibilities to keep their economies growing at a brisk pace so that their citizens will have the resources to buy American products. We sometimes forget that. Their economies have to move for us to be able to have some place to export, and other nations will also have to reduce their unfair trade barriers to American goods and services, and much more has to be done there as we are going to hear this morning.

For our part, it seems to me we must gradually reduce the Federal Government's budget deficit, which diverts scarce American savings financing the government, rather than promoting the private investment that is needed to generate the goods required to close the trade gap. At the same time, the Federal Reserve must be prepared to offset the negative impact on the economy that deficit reduction might have.

So we are in a bit of a conundrum. A favorite word of my high school civics teacher was conundrum. We are in a bit of a conundrum. And proper macroeconomic policy alone will not do the trick. We simply must do a better job of educating our current and future work force and in expanding our civilian research and development effort. Perhaps most important, American industry, its management and its labor force, will have to redouble the efforts to become more productive.

We are here today to explore with some very distinguished witnesses what part, if any, antitrust policy can play in this national effort. Our hearings today and tomorrow will consider the problems facing two categories of companies:

First, those in traditional basic industries, such as steel, that are being battered heavily by stiff import competition; and, I might add, those that are, quite frankly, of major concern to my region of the country; and, second, those industries at the technological frontier, such as semiconductors, where cooperative ventures between firms may be increasingly required to respond to competition abroad.

I am looking forward to hearing all of your testimony today, and I want to stress that we are here to engage in an intellectual give and take on the issues. I for one have not made up my mind on what the best course to follow is with regard to the antitrust policy, the economic policy that we are going to undertake here.

There is no specific legislation before the committee that we will be considering during these hearings. I do want to stress that we

are not here today to discuss the administration's proposal to codify the 1984 merger guidelines in the Justice Department. We will take that up, but that is not the exclusive purpose of today's hearing.

Indeed, I personally have been extremely concerned that the general merger enforcement policies of this administration have been far too lax. What we do want to consider today is whether or not firms in so-called distressed industries should seek and receive special treatment under the antitrust laws. Does it help you? Do you want it? Does it make a difference? What is your view?

Although some members of this committee may have developed firm views on the subject that we are going to explore, let me express once again that I have an open mind on this subject, and I want to have a full and honest exploration of the issues.

To assist the committee, I have requested each witness to address a number of specific issues that bear on today's hearings. The first is: Should merger restrictions under section 7 of the Clayton Act be relaxed in any fashion to facilitate mergers between firms in industries severely damaged by imports or otherwise demonstrated to be in decline?

Last year, the administration proposed an exemption procedure for such firms, but it appears since to have backed off this approach. Was this the right move? And if some relaxation of section 7 standards is in order for distressed industries, are there any reforms short of a total exemption that this committee should consider?

Congress is now deliberating a number of omnibus trade bills which, among other things, would require industries that petition for temporary relief under our trade laws to submit adjustment plans to the International Trade Commission, and if they receive relief from the President, to adhere to those plans. These bills generally require the adjustment plans to be developed jointly by firms in these industries, labor and, perhaps, Federal Government officials.

Would such a process require Congress to exempt the participants from the antitrust laws, and, if so, would the benefits, if there were any, from allowing firms to get together in this way outweigh the potential risk that these joint discussions would facilitate the formation of cartels? What happens if you are not invited into the meeting? I do not know the answers to these questions.

It is like old Russell Long used to say, "I am against any cabal I am not a part of." Well, you know, you all may not be a part of it. To put it another way, do we want to establish something like the "recession cartels" the Japanese have created for their troubled industries.

The committee looks forward to hearing the witnesses discuss these and other issues. I will ask each witness to limit his oral summary of his prepared statement, which without objection will be inserted in the record, to no more than 10 minutes at the outset, so we will have time to do, what I think is fair to say, the chairman and I learn the most from.

There are divergent views among some of you here. I want to hear you all debate some of those views, as well as having us be able to ask you some specific questions. That is the reason for at-

tempting to limit the formal testimony. With that, I suggest we begin in the order starting with my witness list here: Dr. Robert Crandall, Senior Fellow, with The Brookings Institution, of Washington, and then go to Mr. Lynn R. Williams, President, United Steelworkers of America, who has been before this committee in the past, and we welcome you again; Curtis H. Barnette, Senior Vice President and General Counsel, Bethlehem Steel Corporation, Bethlehem, Pennsylvania; Joseph Sims, of Jones, Day, Reavis & Pogue, of Washington, D.C., a distinguished attorney who has had a significant amount of experience in this area in and out of government; and Professor Walter Adams, Economics Department, Michigan State University, East Lansing, Michigan.

With that, gentlemen, let us begin with you, Dr. Crandall first, and then we will move from there.

A PANEL CONSISTING OF ROBERT W. CRANDALL, SENIOR FELLOW, THE BROOKINGS INSTITUTION; LYNN R. WILLIAMS, PRESIDENT, UNITED STEELWORKERS OF AMERICA; CURTIS H. BARNETTE, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, BETHLEHEM STEEL CORP.; JOSEPH SIMS, JONES, DAY, REAVIS & POGUE; AND WALTER ADAMS, ECONOMICS DEPARTMENT, MICHIGAN STATE UNIVERSITY

Mr. CRANDALL. Thank you, Mr. Chairman.

My name is Robert Crandall. I am a Senior Fellow at The Brookings Institution and have spent a good deal of time over the past 10 years or so studying the steel industry, in addition to publishing a couple books on the industry.

I also have participated in some of the antitrust wars in the industry. Most notable was as the economist working with Mr. Sims, over on my left, on the Republic-LTV merger.

I will attempt today to address the three questions which you raised in your opening remarks and in the letter of invitation to us, but I think I would like to begin even before that with just a brief outline of where the industry is, given Mr. Metzenbaum's opening remarks.

I think it is important to point out that this industry, while it has lost a great deal of equity and a large number of employees, is not about to collapse. The size of the industry is still very large. We have about the third largest steel industry in the world. We still have about 112 million tons of steel assets, raw steel assets in the United States, even though the large companies, the large integrated companies have lost about 55 million tons of capacity in the last 10 years. The smaller steel companies——

The CHAIRMAN. Lost capacity or market?

Mr. CRANDALL. Capacity. They have lost 55 million tons of capacity.

The smaller steel companies, most of whom are not household names, many of which are located in the South and many of which are too busy doing business today to be here lobbying for their future in our Capital. Birmingham, Nucor Steel, North Star, Chaparral, Georgetown, Raritan River, and, Bayou Steel are generally doing very well and expanding. Some of them, such as North Star and Nucor are expanding very rapidly and are about to expand

into the bread basket of the integrated steel industry's business, namely the sheet steel area and large structural shapes.

So the industry is not collapsing. It is shifting. It is shifting from North to South. It is shifting from large integrated companies that use blast furnaces, basic oxygen furnaces, toward small-scale operations which are highly efficient, which have generally done fairly well and will do very well in the future.

There are a large number of foreign producers looking at this market for joint ventures and who will be making an announcement of investment decisions in the next couple of years. A number of them have already made this decision. A Japanese firm has invested a joint venture with Nucor. Nippon Kokan Steel has bought half of National Steel. Nippon Steel has been in negotiations with Inland Steel over building a cold finishing complex. There are a number of joint ventures in electrogalvanizing facilities.

This is not an industry which is collapsing but it is an industry shifting, shifting with the forces of technological change and market competition.

As to the questions which we are to discuss up here today, namely the antitrust issues, the first issue is whether in fact antitrust has been a serious burden to this industry and a serious obstacle to allowing it to rationalize and to operate more efficiently. Mr. Sims will offer much more lengthy testimony and has a much more extensive piece of written testimony for the record on this issue, but I think it is safe to say that the merger law has not been a significant handicap to the integrated steel companies since perhaps back in the 1950's or 1960's.

When it was a handicap a number of years ago—and Mr. Barnette will certainly remember this—Bethlehem Steel, having difficulty making an acquisition in the late fifties, was forced as an alternative to build perhaps one of the two or three most efficient plants in the United States, the last integrated plant to be built in the United States.

Since the high watermark of antitrust inforcement in the 1960's, the standards for pursuing merger cases in the courts have been relaxed almost continually by the Antitrust Division and the Federal Trade Commission. The impact of foreign competition has been given increased weight in determinations made by either the Antitrust Division or the Federal Trade Commission to challenge mergers. In fact, I am convinced that the two proposed steel mergers of 1983–84 the Republic-LTV merger and proposed acquisition by U.S. Steel of National Steel, would have escaped challenge had it not been for the fact that the staff of the Antitrust Division at that time was terribly concerned that import quotas were about to be imposed. It was difficult to argue that foreign competition was sufficient to discourage any attempt by domestic manufacturers to collude and at the same time to impose fixed, binding quotas on those foreign competitors. Because these quotas were about to be announced, and members of the administration in the Justice Department knew that they were likely to be announced, the Antitrust Division was extremely hesitant to permit these two mergers. In fact, the staff initially recommended against both of them.

The National-U.S. merger was blocked. The LTV-Republic merger was consummated after a nominal spinning off of assets.

Had it not been for the pendency of quotas at the time, I do not believe that the Antitrust Division would have attacked in a serious way either one of those mergers although it may have required some minor asset spinoffs.

Secondly, the Antitrust Division simply did not believe the evidence that was presented to them by the companies of the efficiencies from the mergers. In fact, there may be relatively few efficiencies to be gained from mergers in the integrated steel industry that cannot be achieved in other ways. Since the industry has been forced to contract substantially and has been unable to invest to modernize many of its facilities, most plants are in a state of imbalance. There are some facilities at some plants which are in good shape and other facilities which are not. This requires transshipment of products, some transshipment of coke, some transshipments of slabs, some shipments of hot coils to be further rolled into cold-rolled sheet, but these transshipments can be handled among plants of different corporations by contract. Such "rationalizations" do not require formal merger.

As a result, the efficiencies which the companies can show due to mergers are generally relatively small. The only major source of such efficiencies is in simply spreading the fixed costs of management and overhead, and these tend to be relatively small. So in the absence of a showing that there are large efficiencies to be had and given the existence of quotas, the Antitrust Division has been quite skeptical of steel mergers in recent years. I believe that in the absence of fixed, binding quotas—the current quotas may not be binding at the current value of the dollar—the antitrust authorities are going to be far less reluctant to approve mergers among declining firms in this declining sector, the integrated sector of the steel industry.

The second issue is whether antitrust exemptions ought to be granted to joint industry-labor-government negotiations over the rationalization of assets and whether one needs some sort of recession cartel approach to the U.S. industry. I think that is probably an unattractive option, and I think it is probably too late anyway. The integrated industry has already had to close 55 million tons of capacity. It probably does not have to close more than about another 25 million tons over the next 10 or 15 years. The adjustment by labor has already taken place. The total employees in this industry has fallen from roughly 550,000 down to about 180,000 in the last 20 years. It may fall to, say, 120,000 by the end of the next decade.

So the adjustments have largely taken place, though there are more to come. The only case I think that can be made for recession cartels in this case is the so-called prisoner's dilemma, that keeps me from closing my plant because I hope you will close first so that I can assume your customers,

Mergers and joint ventures are one possibility, but I think an outright recession cartel or outright agreement between industry and government to retire assets and to essentially assign quotas is extremely dangerous. The experience of the European Economic Community in establishing its steel cartel over the last 5 to 10 years, freezing out minimills, is an example of what happens when you get into this sort of business. The newcomers are frozen out.

The old firms maintain their position when the new competitors could produce more efficiently.

On the final issue, I have nothing to say. I do not think there is any necessity from the steel industry's perspective to alter the antitrust laws. If you wish to address the antitrust laws for an overhaul, I think it should be done on more general grounds but not because current law places any particular burden on the steel industry.

Thank you.

[The prepared statement of Mr. Crandall follows:]

Testimony of Robert W. Crandall,
Senior Fellow, The Brookings Institution*
Before the Senate Judiciary Committee, May 6, 1987

Mr. Chairman, Members of the Committee, it is a pleasure to appear before you today to offer my views on antitrust, foreign trade restraints, and the steel industry. Obviously, the issues we are discussing today are very important for the economic health of a basic U.S. industry and, indeed, for the U.S. economy. I have devoted a considerable amount of time to the study of the steel industry, authoring or co-authoring two Brookings books as well as various articles on the industry. In addition, I served as the economic counsel to LTV and Republic during their 1983-84 merger negotiations with the Antitrust Division of the U.S. Department of Justice, and I participated in the design and execution of the original "trigger-price" program when I was in the Executive Office of the President in 1977-78.

I have been asked to offer my views on three issues: (1) Should merger law be modified to allow a more permissive approach to industries that the International Trade Commission determines have been injured by imports? (2) Should antitrust exemptions be granted to industry-labor-government agreements on adjustment strategies for industries granted import relief? (3) Are there other ways in which the antitrust laws should be modified to facilitate the restructuring of declining industries? I shall address these issues seriatim.

Modification of Merger Law

U.S. merger law (under Section 7 of the Clayton Act) has been changing steadily since the high-water mark of judicial hostility to mergers in the late 1960s. As the received economic doctrine changed in the 1970s, public policy towards mergers changed with it. The view that there is a causal relationship between economic concentration and profitability, is now under severe attack. More and more empirical evidence suggests that size is a requisite of efficiency and low unit

* These views do not necessarily represent the views of the Brookings Institution, its staff, or its trustees.

costs and, therefore, that high concentration is most often a reflection of the large size of firms required for efficiency. Indeed, antitrust enforcement doctrines have adapted to this learning even more rapidly than the case law. As a result, there is very little recent case law on mergers because the enforcement authorities have brought few cases.

The Justice Department's Merger Guidelines have increasingly recognized the importance of potential and actual competition from new domestic entrants in an industry and from imports. An industry that has been battered by imports -- such as steel, or rubber tires -- is not likely to encounter very aggressive antitrust enforcement against mergers among even its larger firms.

In steel, mergers have taken place between LTV and Lykes (Youngstown Sheet and Tube) and between Republic and LTV. In rubber tires, BF Goodrich and Uniroyal were allowed to consolidate their tire manufacturing operations. The only recent example of successful government challenge to a steel merger was the Justice Department's opposition to the US Steel-National Steel proposed merger in 1983, and even this challenge was an anomaly, I believe.

As basic U.S. industries become internationalized, the antitrust authorities recognize the international character of competition in their calculation of market shares and in their judgments concerning the ability of domestic firms to effect a small, "nontransitory" increase in prices as the result of a merger. Foreign competition may be excluded from these calculations only when the industry is protected by binding import quotas. It was the pendency of quotas in 1983 that led the Justice Department to block the USS-National steel merger and temporarily to block the LTV-Republic merger. It may have appeared incongruous for one Executive Branch Department to try to offset the anticompetitive effects of another Department's prospective actions, but this is apparently what happened.

As long as an industry is not protected by quotas, it is now clear that U.S. antitrust authorities will recognize the effects of foreign

competition in deciding whether to challenge a merger. Therefore, it is simply not necessary to amend Section 7 of the Clayton Act to provide any further exemptions for declining industries, particularly in light of the absence of evidence that mergers improve productive efficiency or competitiveness.

Even this liberalized merger policy is not likely to be of much help to domestic integrated steelmakers as they wrestle with the effects of declining U.S. steel consumption. Indeed, the Justice Department's initial challenge of the LTV-Republic merger was based in part on the companies' failure to persuade the Department that there were significant efficiencies from the merger. This is not surprising, for it is difficult to discern any efficiencies from past or prospective mergers among integrated steel firms. The woeful lack of balance between coking, raw-steel, and finishing capacity in many plants can be rectified by contracts among the producers. Companies can sell one another coke, slabs, billets, rounds, hot bands, or even finished coils for coating without actually merging. Thus, mergers are neither necessary nor sufficient to restore the steel industry to health.

The currently disastrous condition of the U.S. integrated steel industry has not been caused by an aggressive antitrust policy. Rather, it is the result of labor-management problems, faulty forecasts, a collapse of steel consumption caused in part by the strong dollar and slow economic growth, and the growth of minimills. If modification of Section 7 is desirable, it is not because of its effects upon declining industries such as steel.

Collective Restructuring

The last time the Congress tried to introduce collective rationalization of U.S. industry, it was found to be unconstitutional. One can only hope that any attempt to revive the National Industrial Recovery Act will meet a similar fate fifty years later.

A policy of encouraging industry and labor to meet in the Departments of Commerce or Labor under the cloak of antitrust immunity would only encourage schemes to cartelize industry, protect it from foreign competition, and reward inefficiency. Under no circumstances should such a plan be considered.

Were U.S. government officials to meet with integrated steel producers and labor to develop a plan for rationalizing the industry, the predictable result would be a political rationalization of assets, not an economically sensible adjustment. Inefficient assets would continue in production in response to pressures from one Senator or a State's congressional delegation. In recent years, dynamic new U.S. minimills have grown rapidly to take market share from tired, inefficient integrated firms. This would not have occurred if, as in Europe, the government had allocated market shares in an effort to "rationalize" the industry. There is no new minimill sector in the European Economic Community -- it has been frozen out by large steelmakers and their friends in government through an EEC cartel quota system.

Nor should there be any "conditionality" in trade protection for steel. Protecting this declining industry is an unwise decision in the first place. For government to tell steelmakers how they can best adjust to world competition is even more absurd. How can Congressmen or Executive Branch officials know the appropriate strategy? Is the Commerce Department going to choose the type of thin slab caster that Bethlehem or Inland Steel should build? Does it know better than Bethlehem whether there should be any more investment in its steel mills in Pennsylvania and Maryland?

The 1984 Trade Act requires the major steel companies to reinvest substantially all of their cash flows in steel facilities. This law exists despite the fact that those integrated steel companies that have invested most aggressively are now either defunct or in Chapter 11. Between 1975 and 1981, the following U.S. integrated companies were the most aggressive in reinvesting in steel: Republic, Wheeling-Pittsburgh, Sharon, CF&I, and Kaiser. Of this group, only Wheeling-

Pittsburgh and Sharon continue as integrated producers today -- and then only under the protective cover of Chapter 11. Republic was merged into LTV, which is also in Chapter 11. Heavy reinvestment in steel has been unprofitable since 1970. In a country with a low savings rate, Congress has the responsibility for not ordering an outright squandering of our limited social savings.

Other Changes in the Antitrust Laws

There are many changes in the antitrust laws that might make sense, including the repeal of the Robinson Patman Act, an explicit recognition that conglomerate mergers are benign, and a limitation upon the right of competitors to sue to block mergers. None of these changes, however, is required by the current state of the steel industry. Antitrust is largely irrelevant to the current problems of the U.S. steel industry.

The CHAIRMAN. Thank you very much.

Before we move to Mr. Williams, I should announce the schedule for the other witnesses. We will continue this panel until about 12:15 and then recess for lunch and reconvene at 1:45 with the second panel. So I do not believe anybody in the first panel will have to come back. I hope we have it finished by then. I want those in the second panel—I take that back. I take that back. I am sorry, I just combined 2 days of hearings in 1 day. We will recess at about 12:15 and we would like those of you who can come back to come back at, say, 1:30 instead of 1:45. I realize that Mr. Williams cannot, I am told by staff, and maybe some of you others cannot, but if you can, if it is possible, we would appreciate it. If you cannot, we understand.

Mr. Williams?

Mr. WILLIAMS. Thank you, Senator Biden, members of the committee.

I appreciate very much the opportunity to present some testimony here this morning.

Historical concerns over mergers and acquisitions have focused upon the economic concentrations which ensued and debates as to whether bigness in itself was more conducive to efficiency. Interestingly, Chairman Wright Patman, House Select Committee on Small Business, on March 10, 1950, conducted a hearing on the development and growth of the 12 major steel companies. He introduced a study proposed by the Commerce Department accordingly:

"The disappearance of small business units in the steel and other industries has been the cause of great concern to this Committee and to the Congress."

However, during the period studies (1900–1950), steelmaking capacity grew from 28.2 million tons to 99.4 million tons. As a point of reference, steel capacity rose to approximately 162 million tons in 1977, but has fallen to 112 million tons in 1987 with a staggering loss of 270,000 jobs.

I mention this earlier congressional episode in steel industry merger history because although Congressman Patman noted the loss of smaller units, there was, nevertheless, capacity expansion. While I do not intend to comment on the oligopolistic impacts of such production concentration, it is indeed ironic that the current attention addressed to steel mergers is initiated in order to facilitate further capacity reduction.

The market climate has markedly changed with continued declines in steel production being registered in the Western economies, but increases in both consumption and capacity construction in the developing countries. As a matter of fact, non-OECD market economy countries between 1918–1985 experienced an annual 6.1 percent growth in steelmaking capacity, while OECD countries witnessed an annual reduction of 1.3 percent.

We have a table in the testimony showing what happened in major OECD countries.

There are dramatic structural pressures and profound changes occurring in the global steel industry. However, as a point of departure for today's hearing, it is important to note that our European trading partners have developed a more coordinated approach

within the Common Market countries to respond to the restructuring of their industries.

The so-called Davignon or anticrisis plan addresses both the issue of reduction in capacity and the accompanying social consequences and the issue of modernization of facilities. One of the features of the plan involves a very conscious role of the government which is being exercised within the framework of, for the most part, a nationalized steel industry.

By contrast, we respond with uncoordinated ad hoc government measures within a framework of mergers and bankruptcies. It is a most inefficient—aside from being a socially disruptive—process for restructuring. Unfortunately, the downward trend in steel capacity has not concluded. Many steel experts in government and in industry still contend that overcapacity is a major problem and advocate further retrenchment.

If, however, indirect steel imports are brought into balance, then the degree of the overcapacity is substantially mitigated. A recent study by the Department of Commerce revealed that there is an imbalance of over 7 billion tons of indirect steel which developed in the last 4 years during the period of the dollar evaluation. A more appropriate reevaluation of the dollar against world currencies could reverse the indirect steel trade imbalance and allow domestic producers to recapture at least 4 to 6 million tons.

We have a table showing the increasing imbalance in indirect trade.

It is within this context that there is a renewed interest in relaxation of antitrust laws to aid in industry restructuring. Some of this relaxation has already been provided through a modification of Department of Justice guidelines whereby a definition of the steel market, for the purpose of determining concentration therein, would include both domestic and foreign producers serving this market.

The question is whether further relaxation should be provided. The union is understandably very wary of such a proposition. In the past, we have testified against conglomerate takeover; for example, the LTV acquisition of J&L and Lykes Steamship acquisition of Youngstown Sheet & Tube.

Our position was more flexible regarding mergers within the steel industry because of an assumption that the merged firms were better able to withstand cyclical and import pressures. However, the Republic Steel merger with LTV did not prove to be very successful since LTV only not only shut down facilities, but has gone into bankruptcy.

Steel productivity has been increasing. A number of factors have been contributing to competitive advantage, changes in working practices, employment cost reduction through collective bargaining, investment in productive facilities and full utilization of reduced capacity. There is no doubt that higher utilization of capacity will introduce higher productivity. However, reducing capacity to create higher utilization is a negative approach. It makes American manufacturing industries more dependent upon foreign steel availability.

Obviously, it hurts workers and communities and depletes our steelmaking capability. A more positive approach would be to in-

crease steel demand through a more vigorous national economic policy and strong enforcement of the trade laws. The main issue is we should not accept the short-term drive for fuller utilization through capacity reductions and, therefore, be dangerously exposed with the depressed capacity in a period of normalcy. We are more convinced, though, that inadequate response to the steel industry pressures cannot rely simply upon the relief measure from the International Trade Commission being one of antitrust relaxation.

There must also be import reduction. Even more than that, it could well be proposed that our trade/antitrust statutes could provide the forum for a more rational restructuring of the steel industry, one that could supplant the chaotic bankruptcy forum, but it would also have to be done in a manner in which a merger mania would not randomly reduce capacity. In other words, could we find in these measures a coordinated restructuring opportunity.

Then we review our involvement in the Steel Tripartite Advisory Committee. In pursuit of this objective, fully recognizing the extent to which our European trading partners have developed their restructuring policy, we advanced and supported amendments to section 201 of the Trade Act whereby trade relief and other adjustment strategies would emerge as a conditional response to the implementation of an adjustment plan.

Our intention is that the extension of trade relief, which may be coupled with antitrust relaxations, must elicit a quid pro quo commitment from the industry. The aspects of that commitment could remain vague and its implementation elude action unless there is conditionality. No one specific measure constitutes a steel adjustment policy. But while a number of measures have been advanced for steel, there remains no single forum for developing the measures and for adjusting them in a coordinated way within a structured adaptation policy.

My main concern, therefore, is that the merger laws should not be modified merely to provide another trade relief measure without any consideration of nor connection with a restructuring strategy. The union's concern is even more accelerated when we realize that the proponents of such relaxation so as to balance the potential impact of concentration. Certainly, the need to maintain an internationally competitive, integrated domestic steel industry as being in our national interest is a policy factor.

Additionally, if shutdowns are promoted or accelerated as a result of the relaxed merger standards, steelworkers' adjustment measures must be addressed. Without a restructuring forum for evaluating these considerations, it is difficult to assure an efficacious and socially acceptable merger relaxation proposal. Thus, for instance, when the union, during the Steel Advisory Committee sessions, broached the question of the potential social effects on the affected workers and communities:

"The members of the subcommittee were unable to reach unanimous agreement as to whether antitrust decisions should take account of the potential social effects of a proposed merger on workers and communities or whether notice of any employment reductions or plant closures that are expected to result from a merger decision should be released."

Again, without a readjustment forum, the ad hoc measures are constrained to address very narrow aspects of the steel restructuring. However, the steel crisis is not just one of reallocation of productive resources due to overcapacity, it is also one of worker and community readjustment. The union has, therefore, sought conditionality in relationship to all measures being proposed, a conditionality which can be achieved either through a separate steel sector adjustment strategy or one developed through an adjustment plan as part of a section 201 petition. I am aware of criticism which has been directed at this proposed section 201 amendment as being too identified with an industrial policy approach.

However, it is somewhat hard to comprehend this opposition when—at least in steel—there are numerous measures which have already been applied: imposition of voluntary export restraints, refunds on unused investment tax credits, $10 million set-aside for steelworker adjustment projects; application of Title III JTPA programs; Buy American availabilities on government procurements; PBGC assumption of pension liabilities, bankruptcy rejection of health care benefits for retirees, wage concessions, et cetera.

What is evidence is a continued steel crisis. What is needed is a structural forum, not additional ad hoc measures, like induced plant closures. We view mergers in steel, therefore, not in terms of creating bigness, but promoting retrenchment, which without a purpose will cause additional social problems and may not be a solution to the steel problem nor be in the national interest.

The missing ingredient is the matching up of private sector measures with public policy responses. It does not involve incompetent government propping up of inefficient industries. Rather, there needs to be a meshing of measures within a framework which is responsive to the realities of restructuring and the existence of a global economy.

Thank you.

[The prepared statement of Mr. Williams follows:]

TESTIMONY

of

Lynn R. Williams, President

UNITED STEELWORKERS OF AMERICA

Historical concerns over mergers and acquisitions have focused upon the economic concentrations which ensued and debates as to whether bigness in itself was more conducive to efficiency. Interestingly, Chairman Wright Patman, House Select Committee on Small Business, on March 10, 1950, conducted a hearing on the development and growth of the twelve major steel companies. He introduced a study proposed by the Commerce Department accordingly:

> "The disappearance of small business units in the steel and other industries has been the cause of great concern to this committee and to the Congress."

However, during the period studied (1900-1950), steelmaking capacity grew from 28.2 million tons to 99.4 million tons. As a point of reference, steel capacity rose to approximately 162 million tons in 1977, but has fallen to 112 million tons in 1987 with a staggering loss of 270,000 jobs.

I mention this earlier Congressional episode in steel industry merger history because although Congressman Patman noted the loss of smaller units, there was, nevertheless, capacity expansion. While I do not intend to comment on the oligopolistic impacts of such production concentration, it is indeed ironic that the current attention addressed to steel mergers is initiated in order to facilitate further capacity reduction.

The market climate has markedly changed with continued declines in steel production being registered in the Western economies, but increases in both consumption and capacity construction in the developing countries. As a matter of fact, non-OECD market economy countries between 1918-1985 experienced an annual 6.1% growth in steelmaking capacity while OECD countries witnessed an annual reduction of 1.3%.

Capacity Production

	m/tons		81/86	
	1981	1986	Tonnage	%
USA	154.0	127.7	38.0	16.9
Canada	21.9	20.6	1.3	5.8
EEC	220.3	182.0	38.3	17.4
Japan	174.6	166.1	8.5	4.8

There are dramatic structural pressures and profound changes occurring in the global steel industry. However, as a point of departure for today's hearing, it is important to note that our European trading partners have developed a more coordinated approach within the Common Market countries to respond to the restructuring of their industries. The so-called Davignon or anticrisis plan addresses both the issue of reduction in capacity and the accompanying social consequences and the issue of modernization of facilities. One of the features of the plan involves a very conscious role of the government which is being exercised within the framework of, for the most part, a nationalized steel industry. By contrast, we respond with uncoordinated ad hoc government measures within a framework of mergers and bankruptcies. It is a most inefficient--aside from being a socially disruptive--process for restructuring. Unfortunately, the downward trend in steel capacity has not concluded. Many steel experts in government and in industry still contend that overcapacity is a major problem and advocate further retrenchment.

If, however, indirect steel imports (i.e., steel fabricated products) are brought into balance, then the degree of the overcapacity is substantially mitigated. A recent study by the Department of Commerce revealed that there is an imbalance of over 7 billion tons of indirect steel which developed in the last four years during the period of the dollar evaluation. A more appropriate reevaluation of the dollar against world currencies could reverse the indirect steel trade imbalance and allow domestic producers to recapture at least 4 to 6 million tons.

Indirect Steel Trade

Year	Net Imbalance (Million tons)
1980	-0.1
1981	-0.2
1982	-1.3
1983	-3.3
1984	-5.6
1985	-7.3
1986	-7.6

It is within this context that there is a renewed interest in relaxation of antitrust laws to aid in industry restructuring. Some of this relaxation has already been provided through a modification of Department of Justice guidelines whereby a definition of the steel market, for the purpose of determining concentration therein, would include both domestic and foreign producers serving this market.

The question is whether further relaxation should be provided. The Union is understandably very wary of such a proposition. In the past, we have testified against conglomerate takeover; e.g., LTV acquisition of J & L and Lykes Steamship acquisition of Youngstown Sheet & Tube. Our position was more flexible regarding mergers within the steel industry because of an assumption that the merged firms were better able to withstand cyclical and import pressures. However, the Republic Steel merger with LTV did not prove to be very successful since LTV not only shutdown facilities, but has gone into bankruptcy.

We are more convinced, though, that an adequate response to the steel trade pressures cannot rely simply upon the relief measure from the International Trade Commission being one of antitrust relaxation. There must also be import relaxation. Even more than that, it could well be proposed that our trade/antitrust statutes could provide the forum for a more rational restructuring of the steel industry--one that could supplant the chaotic bankruptcy forum. But it would also have to be done in a manner in which a merger mania would not randomly reduce capacity. In other words, could we find in these measures a coordinated restructuring opportunity.

We have engaged in tripartite advisory discussions under the Carter and Reagan Administrations (Steel Tripartite Advisory Committee 1980-1981; Steel Advisory Committee 1983-1984) in order to search for a combination of measures, both public and private, which might assist in and facilitate restructuring. But those forums did not or could not insist upon conditionality; i.e., assurances of restructuring measures in return for implementing commitments. The closest we came to that level of coordination was through the Trade and Tariff Act of 1984 whereby, in return for governmental enforcement of the VRAs, industry is commiting net cash flow to modernization and worker readjustment programs.

In pursuit of this objective, fully recognizing the extent to which our European trading partners have developed their restructuring policy, we advanced and supported amendments to Section 201 of the Trade Act whereby trade relief--and other adjustment strategies--would emerge as a conditional response to the implementation of an adjustment plan.

Our intention is that the extension of trade relief, which may be coupled with antitrust relaxations, must elicit a quid pro quo commitment from the industry. The aspects of that commitment could remain vague and its implementation elude action unless there is conditionality. No one specific measure constitutes a steel adjustment policy. But while a number of measures have been advanced for steel, there remains no single forum for developing the measures and for adjusting them in a coordinated way within a structured adaptation policy.

My main concern, therefore, is that the merger laws should not be modified merely to provide another trade relief measure without any consideration of nor connection with a restructuring strategy. The Union's concern is even more accelerated when we realize that the proponents of such relaxation on mergers are promoting the modification

precisely to increase shutdowns or reduction of capacity. Retrenchment in itself is not a strategy. It could be a factor in an adjustment policy, but it should not be embraced as a "stand-alone" measure.

Furthermore, there are certain overriding public policy considerations regarding economic concentration which cannot be ignored. Presently, mergers might be seen as a more effective way to promote retrenchment. Many steel authorities are advocating additional rationalization of both the American and international steel industry capacity. Hence, there is a tendency to promote a more lenient application of the antitrust laws in order to facilitate retrenchment. Nevertheless, the end result might be violative of public antitrust policy even though a more rapid capacity reduction may ensue.

We are, therefore, indicating that there should be very definite social advantages for the merger relaxations so as to balance the potential impact of concentration. Certainly the need to maintain an internationally competitive integrated domestic steel industry as being in our national interest is a policy factor. Additionally, if shutdowns are promoted or accelerated as a result of relaxed merger standards, steelworkers' adjustment measures must be addressed.

Without a restructuring forum for evaluating these considerations, it is difficult to assure an efficacious and socially acceptable application of a merger relaxation proposal. Thus, for instance, when the Union, during the Steel Advisory Committee sessions, broached the question of the potential social effects on the affected workers and communities:

> "The members of the subcommittee were unable to reach unanimous agreement as to whether antitrust decisions should take account of the potential social effects of a proposed merger on workers and communities or whether notice of any employment reductions or plant closures that are expected to result from a merger decision should be released."

The committee concluded in its findings that

> "There is general recognition that mergers may lead to an accelerated reduction in employment in the industry. . . . /But/ after a sympathetic consideration, government and management representatives on the Subcommittee concluded that the antitrust laws are an inappropriate instrument to address these concerns."

Again, without a readjustment forum, the ad hoc measures are constrained to address very narrow aspects steel restructuring. However, the steel crisis is not just one of reallocation of productive resources due to overcapacity, it is also one of worker and community readjustment. The Union has, therefore, sought conditionality in relationship to all measures being proposed, a conditionality which can be achieved either through a separate steel sector adjustment strategy or one developed through an adjustment plan as part of a Section 201 petition. I am aware of criticism which has been directed at this proposed Section 201 amendment as being too identified with an industrial policy approach. However, it is somewhat hard to comprehend this opposition when--at least in steel--there are numerous measures which have already been applied: imposition of voluntary export restraints (VRAs); refunds on unused Investment Tax Credits; $10 million setaside for steelworker adjustment projects; application of Title III JTPA programs; Buy American availabilities on government procurements; PBGC assumption of pension liabilities; bankruptcy rejection of health care benefits for retirees; wage concessions; etc. What's missing is coordination. What's evident is a continued steel crisis. What's needed is a structural forum--not additional ad hoc measures, like induced plant closures. We view mergers in steel, therefore, not in terms of creating bigness, but promoting retrenchment, which without a purpose, will cause additional social problems and may not be a solution to the steel problem nor be in the national interest.

The missing ingredient is the matching up of private sector measures with public policy responses. It does not involve incompetent government propping up of inefficient industries. Rather, there needs to be a meshing of measures within a framework which is responsive to the realities of restructuring and the existence of a global economy.

STEEL ADVISORY COMMITTEE

U.S. DEPARTMENT OF COMMERCE

U.S. DEPARTMENT OF LABOR

REPORT OF THE STEEL ADVISORY COMMITTEE

December 3, 1984

BEST AVAILABLE COPY

E. REPORT OF THE

SUBCOMMITTEE

ON INDUSTRY RATIONALIZATION ISSUES

A. Definition

For this Report, the term "rationalization" is used to describe public and private measures affecting the level, composition, and organization of the U.S. steel industry and its workers that are necessary to improve the competitiveness of this industry. Such measures include the expansion or modernization of facilities, the combination of facilities through merger, joint venture, or other contractual arrangements, and the closure of facilities. In our economic system, decisions on these measures will be made in response to market conditions, subject to the effect of antitrust, labor, regulatory, tax, trade, and other public policies. It is also recognized that some government measures may be appropriate to assist firms, workers, and communities that are adversely affected by measures to rationalize the U.S. industry.

B Subcommittee Charge

The initial charge to this Subcommittee was:

"To examine those issues bearing on the industry's ability to rationalize its production operations, including the evidence supporting or not supporting the need for additional rationalization, and the public and private policy that may be required to facilitate rationalization of industry.

"To prepare consensus recommendations resulting from this examination."

For several reasons, the Subcommittee focused initially on the effects of the antitrust laws on the potential for rationalizing the U.S. steel industry. First, there is agreement that the proper focus of the Subcommittee is on the public policies that especially affect the potential for rationalizing the industry, not on the many private decisions that will be made subject to these policies. Second, although certain other public policies -- most importantly, the tax and trade laws -- also affect the potential for rationalization, these other policies are the focus of other subcommittees. Thus, this Report addresses these other policies only as they relate to the antitrust laws. We recognize that many policies affect the rationalization process and are prepared to address later other issues affecting the steel industry that do not fall within the charges of the other subcommittees.

C. Antitrust Issues

General Antitrust Issues

What changes in Federal antitrust laws and their implementation would contribute to the rationalization of the U.S. steel industry?

Specific Antitrust Issues

1. What is the appropriate relation between the application of the antitrust laws and the trade laws as they apply to the steel industry?

2. How should potential efficiencies be handled in evaluating a proposed merger?

3. Should the "failing firm defense" be changed? How?

4. Should the existence of substantial excess capacity be considered in evaluating a proposed merger? How?

5. Should buyer preferences be considered in evaluating a proposed merger? How?

6. Do the antitrust laws have a "chilling effect" on trade in semi-processed goods between domestic competitors in the steel product market? If so, what changes may be desirable?

7. Should the criteria for evaluation of joint ventures be changed? How?

8. Should the antitrust laws permit "rationalization agreements" specific to capacity decisions, as are now authorized in Europe and Japan?

9. Should decisions on antitrust issues take into account the potential social effects on the affected workers and communities?

ISSUE 1

What is the appropriate relation between the application of the antitrust laws and the trade laws, as they apply to the steel industry?

FINDINGS

In responding to the initial merger proposal of LTV and Republic Steel, in addressing the competitive factor, the Department of Justice excluded all foreign firms subject to a quantitative limit on exports to the United States, weighed the market share of the other foreign firms by their exports to the U.S., and grouped these firms within each country.

The 1984 revisions to the Merger Guildlines issued subsequent to the merger application of LTV and Republic Steel, provide that the Department to Justice will generally treat foreign and domestic firms according to the same standards in merger reviews. Under this approach, the Department will not exclude foreign competition from the defined market, even when subject to comprehensive quotas, but will make "appropriate adjustments" to the weight given foreign firms to reflect particular competitive concerns, including the actual effect of trade restraints. The Department will treat foreign firms individually, unless data limitations make that impossible or the firms act as if they are subject to a common control.

RECOMMENDATIONS

1. For antitrust purposes, tariffs are not a relevant constraint, because they do not affect the elasticity of supply (unless the tariffs are so high as to prohibit imports from a specific firm). Foreign firms that are subject to U.S. tariffs, whether part of our general tariff structure or imposed to offset foreign subsidies or dumping, should be included in the relevant market.

2. We endorse the revised standard according similar treatment to domestic and foreign firms in merger review, subject to adjustment for particular competitive concerns including trade restraints. Such adjustment should focus on the potential effect of such restraints on the additional quantity which might be supplied to the U.S. market from domestic sources in response to an increase in the U.S. price.

3. We endorse the new standard of treating foreign firms selling in the U.S. market as individual firms, not grouped by country, unless there is evidence that the foreign firms are effectively operating under common control or if firm-specific data are not available. Grouping foreign firms by country, as sometimes done in the past, overstates the degree of market concentration unless such firms are effectively operating under common control.

4. We join the Trade Subcommittee in endorsing a rigorous enforcement of the U.S. trade and other laws with regard to foreign products sold in the United States.

ISSUE 2

How should potential efficiencies be handled in evaluating a proposed merger?

FINDINGS

The accumulating theoretical and empirical literature of the past decade or so suggests that the potential efficiency gains of mergers are likely to be much larger than the losses to consumers resulting from anticompetitive behavior, particularly when the domestic market is open to supply by foreign firms. Some of the potential efficiency gains may be realized by measures short of merger, but possible improvements in management efficiency are likely to be more dependent on merger. Given the condition of the U.S. steel industry, an increase in efficiency, including efficiencies that are best realized by merger, is critical to its competitiveness in a world market.

The 1984 Merger Guidelines contain substantial revisions relating to efficiencies reflecting this recent economic learning. The Department of Justice will now consider "cognizable efficiencies" in reviewing proposed mergers – including both engineering and non-engineering efficiencies – where they can be established by clear and convincing evidence, and will consider these efficiencies as well as possible anticompetitive effects in exercising its discretion in antitrust review. In some cases, a merger may involve plant closures and the loss of employment in the affected communities. It should be recognized, however, that such employment effects may also occur in the absence of merger.

RECOMMENDATION

We endorse the approach taken in the 1984 Merger Guidelines of considering all potential efficiencies from a proposed merger and in weighing these efficiency gains as well as the potential anticompetitive effects. We believe such an approach is vital to an industry, such as steel, faced with strong foreign competition, and that these considerations would, in general, increase total economic output.

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ISSUE 3

Should the "failing firm defense" be changed? How?

FINDINGS

The Merger Guidelines stated that the Department of Justice would be unlikely to challenge an anticompetitive merger when three conditions are met:

1. The firm would probably be unable to meet its financial obligations in the near future;

2. it would probably not be able to reorganize successfully under Chapter 11; and

3. it has made unsuccessful good faith efforts to elicit offers to merge with other companies that would pose less of a threat to competition.

The 1984 revisions to the Merger Guidelines indicate that the Department would treat similarly a failing division of an otherwise healthy company if the analogous test were met.

The "failing firm defense" is extremely narrow and may not be available to many firms weakened by import competition. This limitation accurately reflects the underlying case law, however, and may not be of great importance in such cases because foreign firms will be given appropriate weight and the Department will take into account the future impact of growing foreign competition.

RECOMMENDATIONS

1. We endorse application of the "failing firm defense" to failing divisions.

2. Broadening of the defense is unnecessary because the revised Merger Guidelines give proper weight to foreign firms and take into account the potential for growing foreign supply in the U.S. market.

ISSUE 4

Should the existence of substantial excess capacity be considered in evaluating a proposed merger? How?

FINDINGS

Under the 1982 Merger Guidelines, firms with excess capacity that were outside of the defined geographical market appear to have been excluded from consideration in computing market shares. If such were the case, the anticompetitive significance of mergers among firms in industries with excess capacity would be overstated. The 1984 revisions to the Merger Guidelines, however, clarify that firms with significant excess capacity outside the defined market will be given consideration.

RECOMMENDATION

We endorse the revisions to the Merger Guidelines relating to treatment of firms with significant excess capacity outside of the defined geographical market.

ISSUE 5

Should buyer preferences be considered in evaluating a proposed merger? How?

FINDINGS

The Department of Justice has occasionally excluded specific firms (usually foreign firms) from the relevant market if some major U.S. purchasers restrict their purchases from these firms. Some auto companies, for example, restrict their purchases of foreign steel except from Canada.

Such a practice by some major buyers would reduce the demand for the product of these firms in the U.S. market but would not affect the elasticity of supply by these firms. This practice would be relevant only if essentially all U.S. buyers of the product maintained quantitative restrictions on their purchases from specific firms that were invariant to a significant difference in the price between the preferred firms and the other firms. For antitrust purposes, a buyer preference that reflects a willingness to pay a fixed price premium for the products of the preferred firms is irrelevant.

RECOMMENDATION

The Department of Justice should not exclude firms from the relevant market on the basis of buyer preferences if they would otherwise be included under the market definition procedures of the Merger Guidelines.

ISSUE 6

Do the antitrust laws have a "chilling effect" on trade in semi-processed goods between domestic competitors in the steel product market? If so, what changes may be desirable?

FINDINGS

"Cross trade" in raw materials or semi-processed goods among firms that compete in other product markets can increase the competitiveness of the U.S. industry by promoting an efficient utilization of the facilities of each firm. It can also result in higher capacity utilization, greater employment in the industry, and reduced cross trade with foreign firms. The fewer the restrictions on such cross trade, the less important are other multi-firm actions, such as joint ventures and mergers. In some cases, the higher costs of transactions between firms or commercial reservations about dealing with other firms that are competitors in the other product markets inhibit such cross trade. It is especially important that the antitrust law not add to these inhibitions.

The Department of Justice has expressed no special concern about cross trade but some public amplification of their position could be valuable.

RECOMMENDATIONS

1. The Department of Justice should amplify its general position on the cross trade of materials or semi-processed goods between firms that are competitors in other product markets.

2. Individual firms are encouraged to seek guidance as necessary from the Department of Justice concerning the antitrust implications of anticipated or hypothetical cross trades, using the procedure of the business review letter.

ISSUE 7

Should the criteria for evaluation of joint ventures be changed? How?

FINDINGS

Joint ventures to provide some common input to firms that compete in other product markets can be an important means to achieve economies of scale that cannot be realized by an individual firm. The fewer the restrictions on joint ventures, the less important are mergers as a means to achieve such economies. The Administration has supported a bill now before Congress that would provide that joint ventures for R&D would not be a per se violation of the antitrust laws and would limit the potential damages from private suits to actual damages and attorneys fees, provided certain disclosure requirements were met. Although this bill is intended to clarify the antitrust standard for R&D joint ventures, it is not intended to imply that other kinds of joint ventures should be treated as illegal per se under the antitrust laws. Some joint ventures may be important for purposes other than R&D, such as to provide round-out facilities for certain products where the economies of scale cannot be realized by one firm, and should not be discouraged by uncertain application of the antitrust laws. The Department of Justice has encouraged steel firms to consider joint ventures as an alternative to merger, but some amplification of the general criteria by which joint ventures would be judged would be valuable.

RECOMMENDATIONS

1. The Department of Justice should consider describing the general criteria by which joint ventures among firms competing in other product markets would be judged.

2. Individual firms are encouraged to seek guidance as necessary from the Department of Justice concerning the antitrust implications of a proposed or hypothetical joint venture, using the procedure of the business review letter.

3. The legislative history of the bill relating to R&D joint ventures appropriately reflects the fact that no adverse implication concerning the antitrust status of joint ventures for other purposes is intended.

ISSUE 8

Should the antitrust laws permit "rationalization agreements" specific to capacity decisions, as are now authorized in Europe and Japan?

FINDINGS

U.S. antitrust laws, in general, enjoin multi-firm agreements on output and capacity as well as on prices (although efforts to formulate public policies involving the Federal Government with representatives of labor and/or management are permissible). This winter, a Department of Justice press release stated that "... meeting the crisis facing the steel industry may require multi-party or industry-wide negotiations. Such negotiations and any agreements that may result are not objectionable under the antitrust laws, provided that they do not lessen competition or create undue market concentration. Should companies in the industry wish to pursue such agreements, we are prepared to provide guidance to deal with antitrust issues."

The case for multi-firm agreements, in the presence of general excess capacity, is that each firm has an incentive to wait for other firms to reduce their capacity. An industry-wide agreement could lead to a more efficient distribution of capacity among firms, involving higher utilization of the more efficient plants and the closure of others.

The primary case against such agreements is that the U.S. industry regards them as an extraordinary remedy that is not necessary if the trade laws are enforced and if the implementation of the antitrust laws reflects the international market conditions affecting the domestic market. The industry recognizes that such agreements as are authorized in Europe and Japan are not likely to be effective unless the domestic market is insulated from foreign competition or the agreement includes all relevant domestic and foreign competitors.

RECOMMENDATIONS

1. We recommend against any change in the antitrust laws or the interpretation of these laws that would permit or encourage private multi-firm or industry-wide agreements on capacity or output, so long as U.S. trade laws are enforced and antitrust laws are implemented in a fashion cognizant of international market conditions.

2. The Subcommittee did not take a position on the merits of a tripartite agreement – involving the Federal Government, management, and labor – in matters bearing on the U.S. steel industry, neither affirming nor denying the merits of such agreements.

ISSUE 9

Should decisions on antitrust issues take into account the potential social effects on the affected workers and communities?

FINDINGS

A number of the actions necessary to rationalize the U.S. steel industry may have adverse effects on some workers and communities. There is a general recognition that the mergers may lead to an accelerated reduction in employment in the industry. The Subcommittee considered at length a proposal to require information on the potential social effects of actions subject to the antitrust laws and to consider such effects in passing on such actions, but was unable to reach unanimous conclusions.

After a sympathetic consideration, government and management representatives on the Subcommittee concluded that the antitrust laws are an inappropriate instrument to address these concerns. They felt these laws focus on the potential anticompetitive effects of a variety of business decisions, and it would be most difficult to broaden the application of these laws to permit a balancing of several concerns. In addition, they concluded that it is not generally possible to anticipate the potential effects on workers and communities at the time a merger or other action subject to the antitrust laws is considered. They did feel, however, that other instruments should be considered to address the adverse effects of rationalization measures on the affected workers and communities.

Representatives of labor strongly supported a position that the antitrust review of mergers is an appropriate point at which to consider the social effects of mergers, in particular the possible effects on workers and communities. They concluded that antitrust law should be reformulated to balance such effects with other policy concerns, such as industry competitiveness and efficiency, in determining whether to permit mergers. In addition, the labor representatives recommended that notice of employment reduction or plant closures resulting from the merger plans should be released by the Department of Justice at the time of the announcement of the merger decision.

RECOMMENDATIONS

1. The members of the Subcommittee were unable to reach unanimous agreement as to whether antitrust decisions should take account of the potential social effects of a proposed merger on workers and communities or whether notice of any employment reductions or plant closures that are expected to result from a merger decision should be released.

2. We do, however, endorse the recommendations of the Subcommittee on Employment, Productivity, and Adjustment Issues for a worker adjustment assistance program consistent with the developing rationalization of the steel industry.

The CHAIRMAN. Thank you very much.

Mr. Barnette?

Mr. BARNETTE. Thank you very much, Senator Biden and the committee.

I am Hank Barnette, of Bethlehem Steel, and I too believe that it is in the national interest to have a privately owned, internationally competitive domestic integrated steel industry, and that has to be fundamental to the issues, I would submit, that this committee is considering.

It is difficult to consider that issue without a factual basis, and I have, Senator, attached to my testimony some rather lengthy exhibits and from time to time in my statement, if I may, I will make reference to them. The exhibits are intended to demonstrate the condition of the domestic steel industry at this time.

The CHAIRMAN. Your entire statement will be placed in the record.

Mr. BARNETTE. Bethlehem and the industry have experienced serious problems. Major producers have incurred over $13 billion of losses since 1982. More than 20 percent of the industry is now in Chapter 11 bankruptcy reorganization. While on the surface the financial results for the industry announced in the most recent quarter may seem to provide some relief from the oceans of red ink that have been engulfing this industry since 1982, they bear very close scrutiny and the industry, in my judgment, continues to have financial difficulties.

At the heart of this problem is world overcapacity in steel, perhaps as much as 200 million tons of raw steel. With this world overhang, our government should certainly be doing nothing to encourage further expansion of steel production facilities in other countries. In the United States itself, there is very substantial overcapacity in both steel production and finishing facilities and in iron oreproduction facilities. Despite costly shutdowns of some 42 million tons of capacity since 1981, industry operating rates remain in the 60 to 70 percent range.

Imports continue at very high levels and, despite the President's steel program, have exceeded the "expected results" of the program by 20 percent. In addition, indirect steel imports have doubled over the last 10 years, a fact which refutes claims of declining steel intensity in the American economy.

The CHAIRMAN. Would you repeat that, please?

Mr. BARNETTE. Yes. Indirect steel imports, steel incorporated into products coming into the marketplace in the form of imports have doubled in the last 10 years. Many claim steel intensity in this country is declining, and I would submit that that fact refutes that claim.

This is a very steel intensive country, both in the imports coming in and also steel incorporated into imported products.

The industry has addressed its problems aggressively and realistically in recent years. There has been a significant capacity reduction. The work force—there is a painful Exhibit 8 attached to my testimony—has been reduced by more than 55 percent from 381,000 workers in 1981 to 174,000 in 1986. Labor contracts have resulted in reductions in both 1983 and 1986. In the meantime, what has the industry been doing to modernize and to maintain itself?

It has spent more than $7 billion, or 170 percent more than its cash flow between 1982 and 1985 to maintain and modernize these facilities. Continuous casting, a very important technological step in the integrated steel industry, has more than doubled since 1981. With all of these measures, the industry's productivity has increased more than 30 percent in man-hours per ton. We believe that labor productivity in integrated steel in the United States is the best in the world. Exhibit 13 suggests 6.3 man-hours per ton.

The industry's problems, however, remain. The restructuring effort has established a very significant on-going surge in pension, health and other retiree benefit costs. These liabilities must be carried by an industry whose production, active work force, sales and cash flow are shrinking. The restructuring costs are in addition to the more than $8 billion in debt that the industry must carry, and while we have accomplished cost reductions of more than $40 per ton since 1981, these have been more than neutralized by reduction in selling values of $50 per ton. Import prices remain some 20 percent below 1982 levels, despite the President's steel program and the declining dollar.

It is fundamental to any antitrust policies or changes in the laws that the committee might consider to continue the President's steel program. It was endorsed by the Congress in the Steel Import Stabilization Act, and represents an essential policy on trade. It is an effort to redress the sustained and pervasive pattern of dumping and massive subsidization which has been an undisputed fact of life in steel trade for the last three decades.

This program will expire in 1989. It must be extended and strengthened to deal effectively with significant uncovered steel exports and increasingly resourceful circumvention schemes.

With respect to trade, I have had the great privilege of testifying before this committee in 1985 in support of Senator Specter's bill, S. 1104, and I continue my unqualified and enthusiastic support for that legislation.

But the steel trade problem is just a manifestation of the more fundamental problem of excess capacity. It is unrealistic to think about long-term viability without further restructuring, but that restructuring must be done in a way that is orderly and that is fair and that is humane to all concerned, particularly our workers and our retirees.

It is clear that if restructuring must and will occur that antitrust law and policies must be consistent with the events that will be taking place. As we have examined antitrust policy, the way those laws have been enforced, as previous witnesses have indicated, a number of transactions, mergers and joint ventures have indeed taken place. But merger policies must recognize the vast changes that are underway in our economy and provide an appropriate basis for policy and legislation.

In our case, foreign government ownership and control of their own domestic steel industries is a fact that is so overwhelming that it must be reflected in these policies and their implementation. I certainly support many of the administration's initiatives introduced last year as part of its competitive package and in the case of basic industry the administration's proposal to remove the incipiency standard from merger enforcement has merit.

Additionally, the failing company doctrine should be expanded to provide exceptions from normal merger enforcement standards in declining but strategically essential industries. It simply is counterproductive to require that companies be totally debilitated before an exemption can be considered, and here a legislative definition for distressed industry would be helpful.

There has been attention directed to the section 201 escape clause petition. As the co-petitioner in one of the largest escape clause petitions ever filed, the 1984 Carbon Steel Investigation, I can assure you that individual company adjustment strategies are carefully considered by the International Trade Commission and the Trade Policy Committee. But for the steel industry, adjustment strategy may well be a consideration that should be further examined.

The last point with respect to antitrust, the revision of the antitrust laws may be helpful, but standing alone they just absolutely will not resolve the enormous problems of our industry. I think this has been recognized by the Economic Policy Council and the Task Force that the President has appointed, now chaired by Bruce Smart, the Under Secretary of Commerce for International Trade. We have worked closely with the task force. I do not know, and would not wish to speculate, what action, if any, the administration will propose, but we are very anxious and willing to work closely with the administration and the Congress to try to develop a meaningful program to deal with the very severe issues that the industry is facing. We believe such a program could result in greater benefits to the country, at less cost, and help restore the economy. Thank you.

[The prepared statement of Mr. Barnette follows:]

TESTIMONY

OF

CURTIS H. BARNETTE

SENIOR VICE PRESIDENT AND GENERAL COUNSEL

BETHLEHEM STEEL CORPORATION

Good morning. I am Hank Barnette and I am Senior Vice President and General Counsel of Bethlehem Steel Corporation. I appreciate this opportunity to appear before you. I believe that it is in the national interest to have a privately owned, internationally competitive, integrated domestic steel industry, and that this will be possible only with sound government policies and legislation along with appropriate actions by the domestic industry and others.

Bethlehem Steel Corporation

Bethlehem Steel Corporation is the third largest integrated steel producer in the U.S. From 1982 through 1986, Bethlehem sustained five consecutive years of financial loss. Total loss for the period has been over $2 billion, including some significant restructuring charges. The company has been downsizing drastically, with total employment declining 55% from 83,800 in 1981 to 37,500 last year, and continued restructuring is required. Despite these losses, and our major restructuring, Bethlehem has invested over $2 billion to modernize and maintain its facilities over the last five years, which is far more than its cash flow from operations. With these brief comments on Bethlehem, I would like to turn to the domestic steel industry, and have attached various Exhibits to my testimony to help illustrate some of the statements being made.

The Domestic Steel Industry

The domestic integrated steel industry has experienced serious problems. The major producers have incurred over $13 billion of losses since 1982. (Exhibit 1) More than twenty percent of industry capacity is now in Chapter 11 Bankruptcy reorganization. (Exhibit 2) While on the surface the financial results for the recently announced first quarter may seem to provide some relief from the oceans of red ink that have

engulfed us since 1982, the industry continues to have financial difficulties. (Exhibit 3)

At the heart of the problem is a world overcapacity in steel producing facilities on the order of 200 million raw steel tons. (Exhibit 4) With this world overhang, our government certainly should be doing nothing to cause further expansion of steel production facilities in other countries. In the United States, there is substantial overcapacity in both steel production and finishing facilities and in iron ore pellet production facilities. Despite costly shutdowns of 42 million tons of capacity since 1981, industry operating rates remain in the 60-70 percent range. (Exhibit 5)

Imports continue at very high levels and, despite the President's Steel Program, have exceeded the "expected results" of the Program by 20 percent. (Exhibit 6) In addition, indirect steel imports have doubled over the last ten years, a fact which refutes claims of declining steel intensity in the American economy. (Exhibit 7)

Industry Actions

The domestic industry has addressed its problems aggressively and realistically in recent years. I have already noted the 27.5 percent reduction in capacity since 1981. We have reduced our work force by more than 55 percent from 391,000 in 1981 to 174,000 in 1986. (Exhibit 8) Labor contracts in 1983 and 1986 resulted in significant wage and benefit cuts and staffing reductions, and salaried workers have also had significant reductions in wages, benefits and force levels. (Exhibit 9)

The industry has spent $7 billion, or 170 percent more than its cash flow between 1982 and 1985, to maintain and modernize its facilities. (Exhibit 10) The percent of steel which is continuously cast has more than doubled since 1981 and is now over 50 percent and rising fast. (Exhibit 11)

As a result of all these measures, the industry's productivity has increased more than 30 percent in manhours per ton since 1982. (Exhibit 12) Labor productivity for carbon

steel in the United States is now the best in the world at 6.3 manhours per net ton. (Exhibit 13)

Industry Problems Remain

The comprehensive self-help programs I have highlighted and the import relief provided by the arrangements negotiated with 19 countries under the President's Steel Program have not been enough to restore the industry for the long term.

The massive restructuring effort has established an enormous responsibility for ongoing pension, health and other retiree benefit costs. (Exhibit 14) This liability has to be carried by an industry whose production, active work force, sales and cash flow are continually shrinking. The industry's ratio of active workers has gone from 2.3 in 1977 to .5 in 1986. (Exhibit 15) A great many of the employees retiring in the last five years are receiving early retirement and shutdown benefits, which dramatically affect pension funding.

The significantly increased restructuring costs are in addition to the more than $8 billion of debt incurred by the industry to modernize its facilities, and this must be serviced by a sharply reduced base of sales and cash flow.

We have accomplished cost reductions of close to $40 per ton since 1981 -- only to see these extraordinary efforts neutralized by reductions in selling values of $50 per ton. (Exhibit 16) Import prices remain 20 percent below 1982 levels despite the President's Steel Program and the declining dollar. (Exhibits 17 and 18)

The President's Steel Program Must Be Continued

The President's Steel Program resulted after extensive and successful litigation before the International Trade Commission. It was endorsed by the Congress in the Steel Import Stabilization Act, and represents an essential policy on trade. It recognizes and attempts to redress the sustained and pervasive pattern of dumping and massive subsidization which has

been an undisputed fact of life in steel trade for at least three decades.

The current Steel Program expires on September 30, 1989. It must be extended and strengthened to deal effectively with significant uncovered steel exports and increasingly resourceful circumvention schemes.

On trade, I should also add that I've had the privilege of testifying before this Committee on November 20, 1985, in support of Senator Specter's Bill S.1104, and I continue my support for this legislation.

But the steel trade problem is a natural manifestation of the more fundamental problem of excess capacity. The steel industry is a cyclical, capital intensive, volume sensitive business. It is unrealistic to project long term viability without further restructuring to achieve a more realistic supply demand balance and this must be an additional policy objective that is accomplished in an orderly, fair and humane way for all concerned.

Further Restructuring Is Required

The industry has been restructuring, and further restructuring is required. When this happens cash costs increase from actuarial losses in pensions, the continuation of health care and life insurance, the settlement of large "take or pay" contracts, severance costs and environmental costs. These costs must, of course, be borne by a shrunken base of earnings.

Restructuring also has income statement and balance sheet impacts resulting immediately in unfavorable changes in key financial indicators, causing downgrading of a company's credit rating and possible defaults authorizing actions by the financial community. Underfunded pension and other employment liabilities are by far the largest concern in this regard. The result of all of this is to cause further barriers to additional restructuring.

Antitrust Law and Policy

It is clear that further restructuring of the domestic integrated steel industry must and will occur. It is therefore

most appropriate to consider whether current antitrust law and policies constrain this in a manner which is inconsistent with the public interest. Antitrust policy permitted the LTV merger, the joint venturing of new finishing capacity such as the recent electrogalvanizing joint ventures, the USX-Posco joint venture in California, the recently announced cold-finishing mill to be joint ventured by Inland Steel Industries and Japan's Nippon Steel Corporation, and the USX-Armco National-Oilwell transaction. Antitrust policy has also permitted joint research activity.

It is essential, however, that merger policies recognize the vast changes that are under way in the international as well as the American economy, and that as appropriate basic policies be enacted into legislation. We must recognize the foreign government ownership and control of much of the international steel industry, and the mergers permitted by other countries of their major steel companies. That's what the American steel industry must compete against in the American market, and we should always remember that we are the only major country that is a net importer of steel. The merger guidelines as modified in 1984 recognized the need to include imports in merger analysis but the impact of imports may be too limited as a significant factor in the analysis of the domestic steel market. The evolving merger policies of the Administration seem to try to strike a proper balance between protecting the various objectives of the antitrust laws and recognizing the realities of today's international economy. Secretary Baldrige and his associates at the Commerce Department also deserve credit for broadening and intensifying the public discussion of merger policy and even further expansion may be appropriate.

In general, I support many of the objectives of the Administration's initiatives introduced last year and again this year as part of the Competitiveness package. At least in the case of basic industry, the Administration's proposal to remove the incipiency standard from merger enforcement has merit. The

failing company doctrine should be expanded to provide exceptions from normal merger enforcement standards in declining but strategically essential industries. In such cases, however, it seems clearly counterproductive to require that companies be totally debilitated before an exception can be considered, and here a better legislative definition for distressed industries would be helpful.

Another area of antitrust application which has received some attention in the context of our trade policy debate involves proposals to require joint labor-industry adjustment plans as part of a Section 201 Escape Clause petition. As the co-petitioner in one of the largest escape clause petitions ever filed -- the 1984 Carbon Steel Investigation -- I can assure you that individual company adjustment strategies are carefully considered by the International Trade Commission and the Trade Policy Committee. For distressed industries, adjustment strategy may well be more efficiently developed on an industry-wide basis, and a limited specific legislative exemption from the antitrust laws for this purpose would clearly facilitate such a process. For other industries, however, such a process may be impractical or impossible, and I would therefore question a mandatory industry-wide adjustment plan requirement in Section 201.

I want to make one last, and fundamental, comment on the application of antitrust law and policy to the steel industry situation. While some modest changes in current antitrust law and policy may be helpful, the problems of the domestic integrated steel industry absolutely will not be resolved by such changes standing alone.

Conclusions

Restructuring that would be in the overall best national interests would encompass a well thought out program for companies to reduce excess steel making and steel finishing capacity in a humane way, repair their distressed balance sheets and financial condition, deal with the trade issue, and establish conditions for an adequate return on capital investment to further modernize the industry.

The Administration has recognized the serious problems of the domestic steel industry. Since last October, an interagency task force of the Economic Policy Council, chaired by Bruce Smart, the Undersecretary of Commerce for International Trade, has been studying a broad range of public policy options. Bethlehem has worked closely with the task force and will continue to do so to both provide data and offer our best judgment and recommendations as to alternative public policy responses that might be appropriate. The task force has, of course, solicited the views of other companies in the domestic industry as well as a number of independent analysts and students of the industry. At this time, I would not want to speculate as to what specific action, if any, the Administration will propose. We are, of course, very hopeful that the Administration, working closely with the Congress, will develop a meaningful program to recognize the past restructuring, the major self help steps that have been taken, and the further restructuring that is necessary. We believe that such a program could result in greater benefits to the country, at less cost, and help restore the economy, and the competitive strength of the integrated domestic steel industry.

EXHIBIT 1

STEEL INDUSTRY
FINANCIAL PERFORMANCE
(MILLIONS OF DOLLARS)

YEAR	NET LOSSES TOTAL CORPORATION	STEEL SEGMENT
1982	$(3,155)	$(3,384)
1983	(2,603)	(2,231)
1984	(235)	(31)
1985	(1,209)	(1,743)
1986 (EST.)	(6,000)	(5,000)
TOTAL	$(13,202)	$(12,389)

SOURCE: AISI

- INDUSTRY HAD NO YEARS WITH LOSS BETWEEN DEPRESSION AND 1982.
- SHUTDOWN COSTS ACCOUNT FOR TWO-THIRDS OF STEEL SEGMENT LOSSES.
- MAJOR STEEL PRODUCERS' DEBT NOW $8 BILLION AND STILL RISING.
- MODERNIZATION EFFORTS FALLING BEHIND BY $2 BILLION ANNUALLY.

THE STEEL INDUSTRY IS IN VERY SERIOUS FINANCIAL CONDITION.

EXHIBIT 2

BANKRUPT STEEL COMPANIES

ALAN WOOD STEEL
CENTRAL STEEL TUBE COMPANY
CONTINENTAL STEEL
EASTERN STAINLESS
FITZSIMMONS STEEL
GUTERL SPECIALTY STEEL
HUNT STEEL COMPANY
KAISER STEEL
KEYSTONE DRAWN STEEL
KORF STEEL
LTV STEEL
MCLOUTH STEEL
MARION STEEL
OHIO RIVER STEEL
PACIFIC STATES STEEL
PENN-DIXIE STEEL
PHOENIX STEEL
ROBLIN STEEL
SHARON STEEL
SOUTHERN ELECTRIC STEEL
SOUTHWEST STEEL ROLLING MILLS
VASCO METALS
WASHBURN WIRE
WHEELING-PITTSBURGH STEEL
WISCONSIN STEEL

AT 25 COMPANIES, REPRESENTING MORE THAN 20% OF INDUSTRY ARE IN, OR HAVE GONE THROUGH BANKRUPTCY PROCEEDINGS.

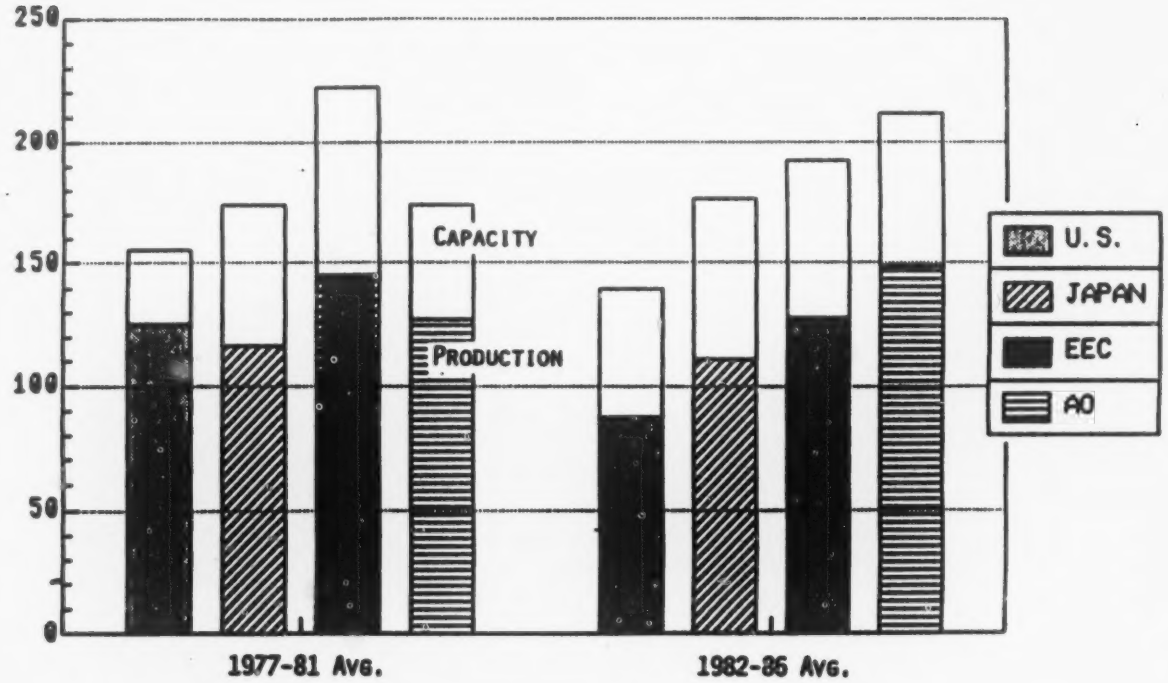
EXHIBIT 3

	BOND RATINGS ON SENIOR DEBT*	
	MOODY'S	STANDARD&POOR'S
USX	Ba1	BB-
LTV	Ca	D
BETHLEHEM	B2	CCC+
ARMCO	B2	B+
INLAND	Ba3	BB-
NATIONAL	Ba3	BB

*APRIL 1987 RATINGS

FOR FIRMS IN A CYCLICAL, CAPITAL-INTENSIVE BUSINESS, THE BALANCE SHEETS AND BOND RATINGS OF MAJOR STEEL PRODUCERS ARE VERY WEAK.

WESTERN WORLD RAW STEEL CAPACITY AND PRODUCTION
5 YEAR AVERAGES
(MIL. N.T.)



EXCESS CAPACITY OF 200 MILLION TONS IS A WORLDWIDE PROBLEM.

SOURCE: CAPACITY - WORLD STEEL DYNAMICS
PRODUCTION - INTERNATIONAL IRON & STEEL INSTITUTE

EXHIBIT 4

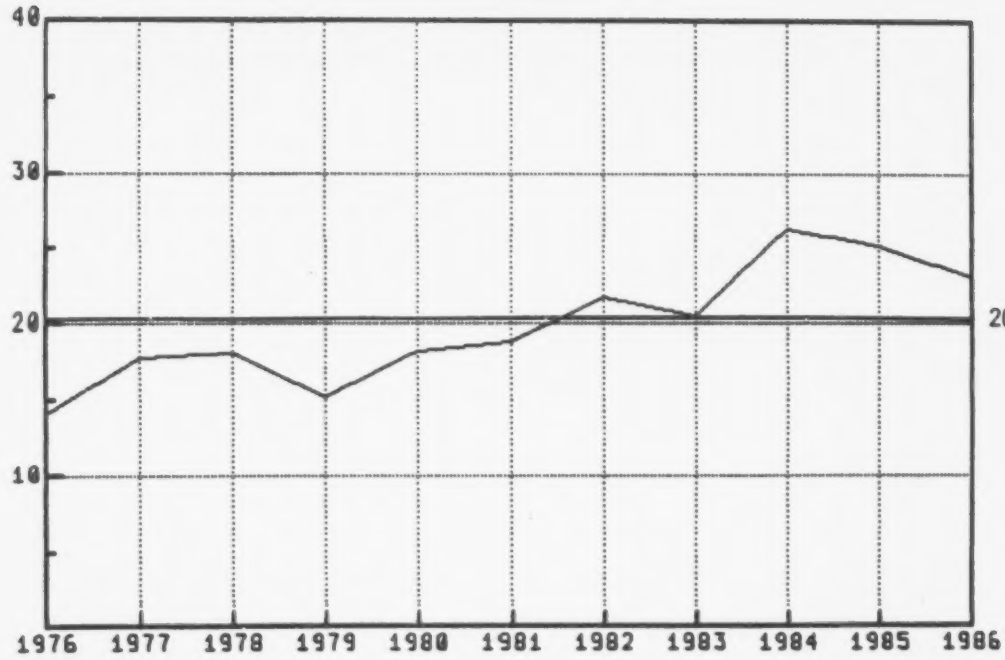
EXHIBIT 5

THE DOMESTIC INDUSTRY HAS DOWNSIZED

	RAW STEEL CAPABILITY (MIL. N.T.)	RAW STEEL PRODUCTION (MIL. N.T.)	CAPABILITY UTILIZATION %
1981	154.3	120.8	78%
1982	154.0	74.6	48
1983	150.6	84.6	56
1984	135.3	92.5	68
1985	133.6	88.3	66
1986	127.9	80.5	63
1987 (F)	111.9	80.9	72
% CHANGE SINCE 1981	-27.5%	-33.3%	N.A.

OVERCAPACITY IS A PART OF THE PROBLEM. DESPITE COSTLY SHUTDOWNS OF 42 MILLION TONS OF CAPACITY BETWEEN 1981 AND 1987 OPERATING RATES REMAIN IN THE 60-70% RANGE.

IMPORTS' SHARE OF U.S. APPARENT STEEL SUPPLY
(PERCENT)

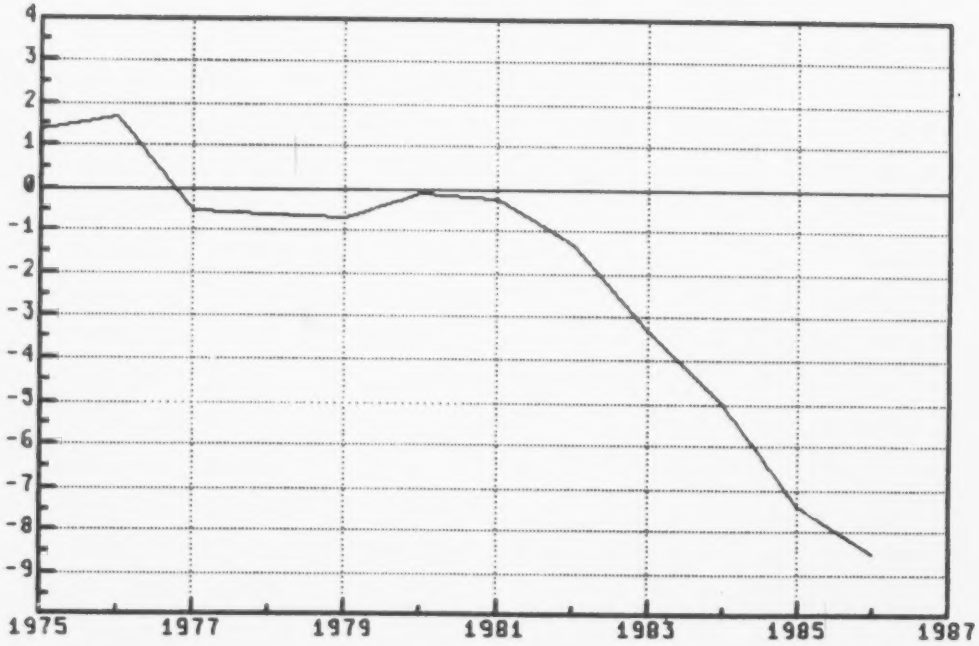


SOURCE: AISI

IMPORTS' MARKET SHARE HAS BEEN HIGHER THAN EVER BEFORE IN THE LAST THREE YEARS AT AN AVERAGE OF 25%, 20% ABOVE THE PRESIDENTS' PROGRAM "EXPECTED RESULTS".

EXHIBIT 6

NET INDIRECT STEEL TRADE
(AUTOS, AUTO PARTS, MACHINERY, ETC.)
MILLION NET TONS

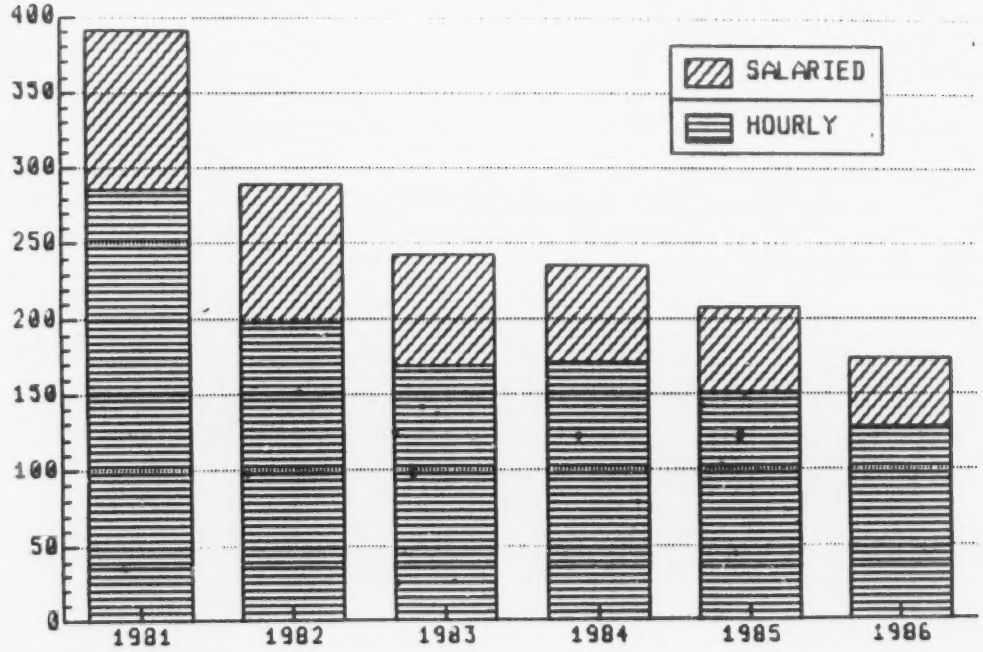


SOURCE: IISI, USDC, INDUSTRY ESTIMATES

THE SURGE OF IMPORTS HAS EXTENDED TO THE PRODUCTS OF OUR CUSTOMERS, RESULTING IN AN ADDITIONAL LOSS OF OVER 8 MILLION TONS OF SHIPMENTS IN 1986.

EXHIBIT 7

AVERAGE STEEL INDUSTRY WORK FORCE
(THOUSANDS)



SOURCE: AISI

THE NUMBER OF EMPLOYEES HAS BEEN CUT BY MORE THAN 55% SINCE 1981 FROM 391,000 TO 174,000 IN 1986.

EXHIBIT 8

EXHIBIT 9

INDUSTRY'S WORKERS ARE INVESTING IN ITS FUTURE

HOURLY WORKERS

- NEGOTIATED SUCCESSIVE CUTS IN WAGES AND BENEFITS IN 1983 AND 1986.
- AGREED TO DRASTIC STAFFING REDUCTIONS.
- INVESTING IN INDUSTRY THROUGH SHAREHOLDING ARRANGEMENTS.
- AGREED TO NEW PROCEDURES TO IMPROVE QUALITY AND PRODUCTIVITY AT ALL OPERATIONS.

SALARIED WORKERS

- SALARIES REDUCED.
- VACATIONS AND HOLIDAYS REDUCED.
- PENSIONS REDUCED.
- MEDICAL BENEFITS REDUCED.

THE INDUSTRY'S WORK FORCE HAS CONTRIBUTED TO IMPROVING THE INDUSTRY'S FINANCIAL PERFORMANCE.

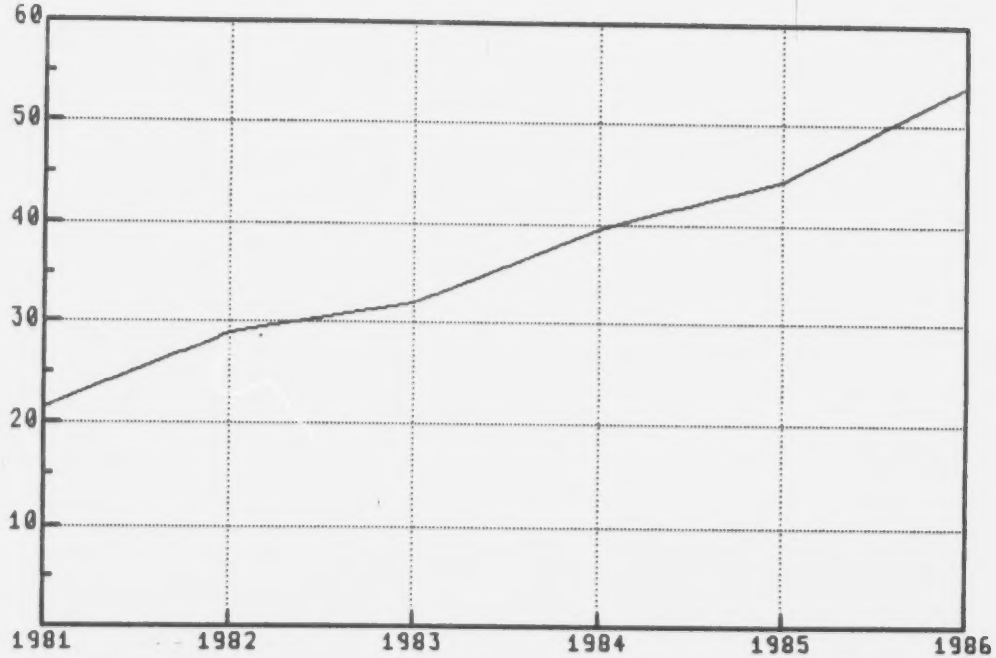
EXHIBIT 10

STEEL INDUSTRY MODERNIZATION EFFORTS

- $7 BILLION EXPENDED FOR NEW PLANT AND EQUIPMENT BETWEEN 1982 AND 1985.
- $2.6 BILLION IN CASH FLOW (INCLUDING DEPRECIATION AND DEFERRED INCOME TAXES) FROM STEEL OPERATIONS DURING SAME PERIOD.
- THUS INDUSTRY HAS INVESTED 170% MORE THAN IT HAS RECEIVED IN RECENT YEARS TO MAINTAIN AND MODERNIZE ITS FACILITIES.
- ASSETS HAVE BEEN SOLD, INVENTORIES REDUCED, EQUITIES ISSUED, ADDITIONAL DEBTS ASSUMED AND CASH RESERVES HAVE BEEN DRAWN UPON TO CONTINUE OPERATIONS.

THE INDUSTRY SPENT $7 BILLION, OR 170% MORE THAN ITS CASH FLOW BETWEEN 1982 AND 1985, TO MAINTAIN AND MODERNIZE ITS FACILITIES.

SHARE OF STEEL CONTINUOUSLY CAST
(PERCENT)

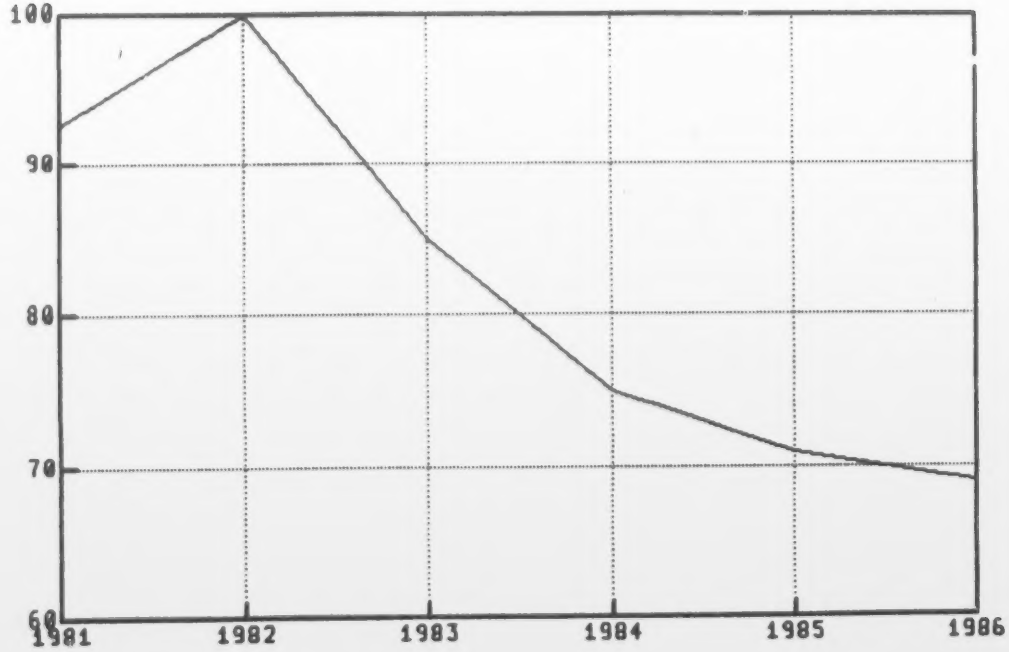


SOURCE: AISI

THE PERCENT OF STEEL WHICH IS CONTINUOUSLY CAST HAS MORE THAN DOUBLED SINCE 1981, IS NOW OVER 50%, AND STILL RISING FAST.

EXHIBIT 11

LABOR PRODUCTIVITY
MANHOURS / NET TON
(INDEX: 1982 = 100)



SOURCE: MAJOR STEEL PRODUCER

LABOR PRODUCTIVITY HAS INCREASED MORE THAN 30% IN MAN-HOURS PER TON SINCE 1982.

EXHIBIT 12

EXHIBIT 13

STEEL LABOR PRODUCTIVITY IN REPRESENTATIVE INDUSTRIALIZED NATIONS

	EST. 1986 PERFORMANCE MAN-HOURS PER NET TON OF SHIPMENTS
UNITED STATES	6.3
W. GERMANY	6.9
JAPAN	7.8
FRANCE	8.0
UNITED KINGDOM	8.2

SOURCE: WORLD STEEL DYNAMICS (ACTUAL OPERATING RATE, ADJUSTED TO INCLUDE CONTRACTING OUT WORKERS)

LABOR PRODUCTIVITY FOR CARBON STEEL IN THE U.S. IS THE BEST IN THE WORLD AT 6.3 MAN-HOURS PER NET TON.

EXHIBIT 14

TYPICAL EMPLOYEE RELATED COSTS ASSOCIATED WITH FACILITY SHUTDOWNS

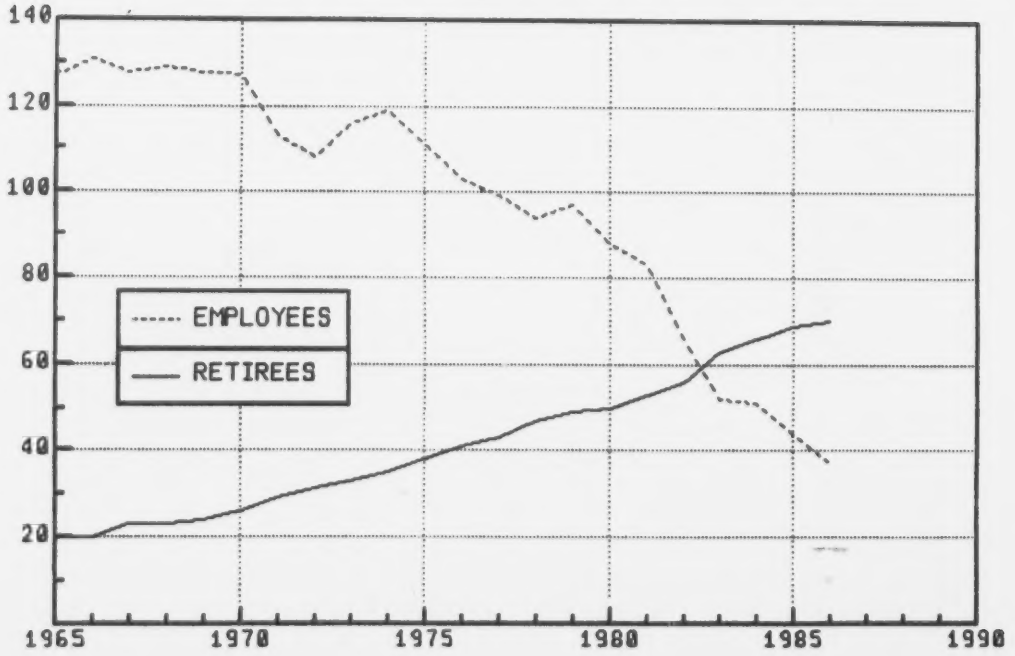
	Cost Per Worker Eligible For Early Pension
PENSIONS	
ACTUARIAL LOSS	$ 36,400
UNFUNDED PRIOR SERVICE	9,300*
MEDICAL AND LIFE INSURANCE	48,700
SUPPLEMENTAL UNEMP. BEN.	4,100
WORKERS' COMPENSATION	1,500
	$100,000

*OMIT IF ACCRUED BENEFITS ARE FULLY FUNDED

SOURCE: MAJOR STEEL PRODUCER

HIGH EXIT BARRIERS MAKE FACILITY SHUTDOWNS VERY EXPENSIVE AND EXACERBATE THE OVERCAPACITY PROBLEM.

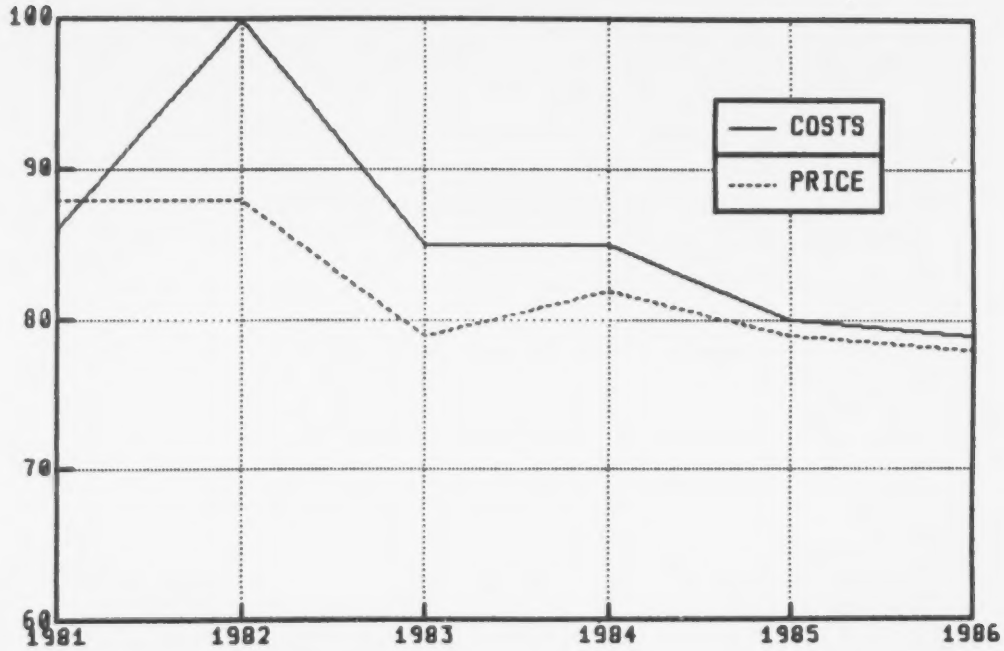
THE DRASTIC SHIFT IN ONE STEEL PRODUCER'S
LEVEL OF ACTIVE EMPLOYEES VS RETIREES
(THOUSANDS)



THE STEEL INDUSTRY'S RATIO OF ACTIVE WORKERS TO RETIREES HAS GONE FROM 2.3 IN 1977 TO 0.5 IN 1986.

EXHIBIT 15

PRODUCTION COSTS EXCEED SELLING PRICE
DOLLARS / NET TON
(INDEX: 1982 COST = 100)

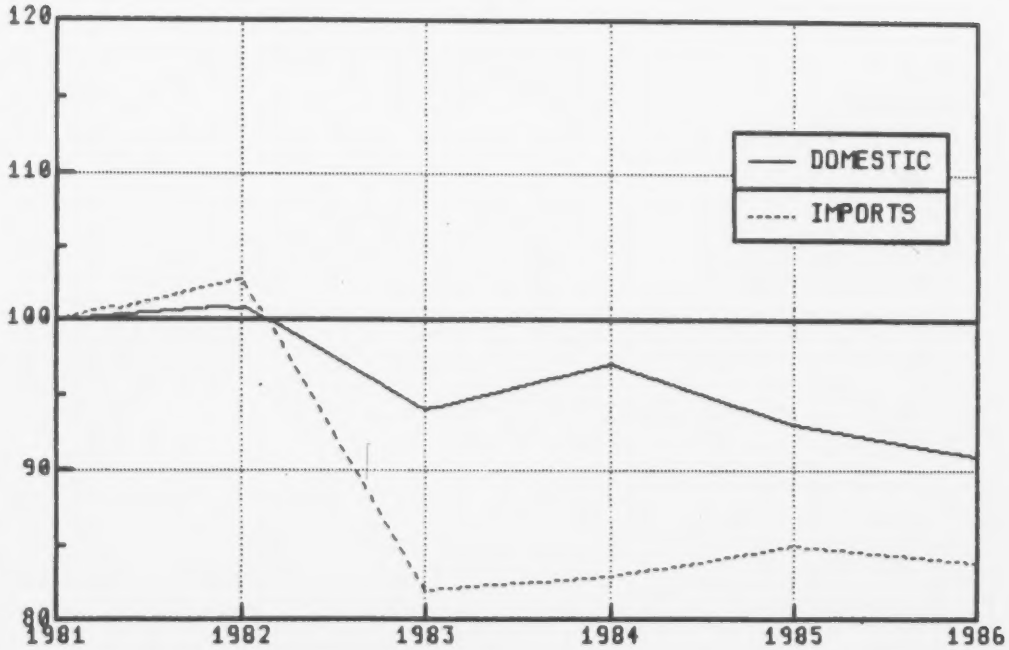


SOURCE: MAJOR STEEL PRODUCER

PRODUCTION COST REDUCTIONS OF 22% SINCE 1982 HAVE FAILED TO ACHIEVE PROFITS DUE TO DECLINING SELLING VALUES.

EXHIBIT 16

IMPORT PRICES VS DOMESTIC PRICES
CONSTANT PRODUCT MIX - C&A ONLY
(INDEX: 1981=100)



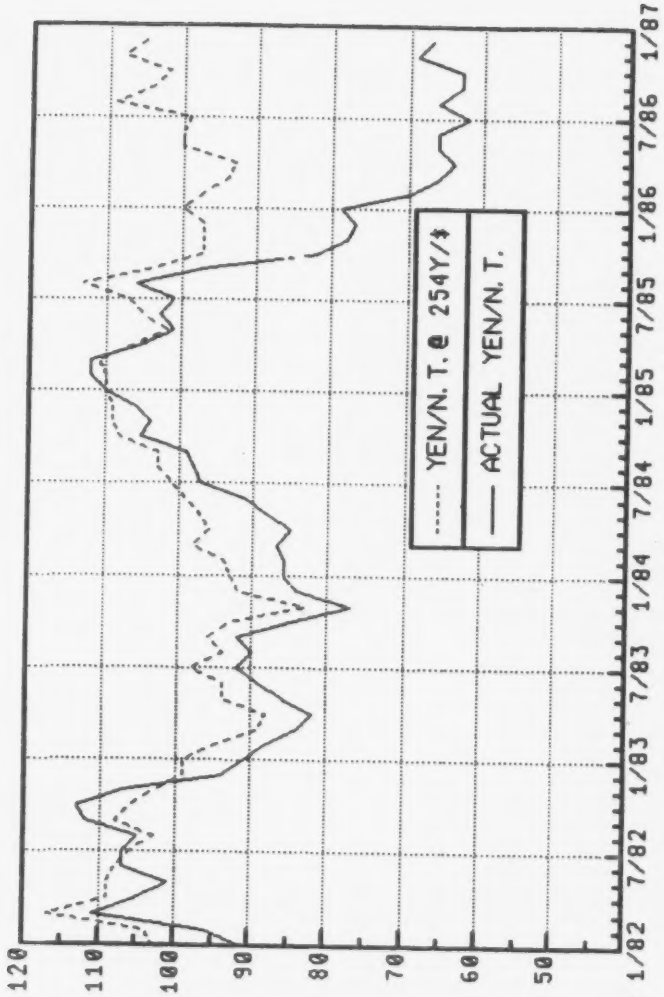
SOURCE: USDC FOR IMPORT PRICES
MAJOR STEEL PRODUCER FOR DOMESTIC PRICES

IMPORT PRICES REMAIN 20% BELOW THE 1982 LEVEL DESPITE VRA'S AND THE WEAKER DOLLAR.

EXHIBIT 17

EXHIBIT 18

VALUE OF CR SHEET IMPORTS FROM JAPAN
(THOUSANDS OF YEN/N. T.)



SOURCE: IM 145 REPORT FOR QUANTITY AND VALUE (F. A. S.)
FRB FOR EXCHANGE RATES

THE WEAKER DOLLAR HAS NOT BEEN REFLECTED IN RISING IMPORT PRICES.

The CHAIRMAN. Thank you.

Mr. Sims

Mr. SIMS. Thank you, Mr. Chairman.

I appreciate the opportunity given by you and the committee to appear and offer some views on this important subject. I have had the privilege of working in the antitrust field for almost two decades now, both in the government and as a private lawyer, and have been involved in particular matters—LTV-Republic Steel being the most recent illustration—that I think provide some guidance to the committee on the questions that it has put forward here.

My basic conclusion—and I will come back and explain this in some detail—is that antitrust is a relatively small player in this field. It is neither the villain nor the cure. It is not a substantial cause nor a realistic solution for many of the problems of the steel industry and other industries with similar difficulties.

To properly explain that conclusion requires a little bit of history, and I will try to be brief, given our time limits here.

Antitrust, of course, is approaching its 100th anniversary and there are still considerable debates, sometimes in this room, about the proper goals of antitrust enforcement policy. These debates, teach us much about the limits of antitrust.

Antitrust is a wonderful concept, fully consistent with the American tradition to be skeptical of size and power, but has historically been a more powerful rhetorical concept than it has been a government policy. It has always been a fairly flexible doctrine with the capacity to bend with the prevailing winds, and I am afraid it is unfortunately also true that it has frequently been a somewhat intellectually shabby doctrine—or at least an intellectually careless doctrine.

One wise observer of legal practice once told me that the perfect antitrust lawyer is someone with a quick but shallow mind, which is unfortunately a little too close to the truth to be really funny.

Antitrust used to be simple when the United States was the most powerful industrial nation in the world. It is less simple today. We face difficult problems, and antitrust has attempted to adjust to those problems, in large part by seeking out a coherent, analytical framework when applying antitrust law to particular fact situations. That framework, as it has developed largely over the last 20 years, rests on analytical economics—not necessarily Chicago School economics, although that particular brand happens to be dominant today—but analytical economics, the guiding principle being that antitrust enforcement should not cause economic harm, that it should not be hostile to efficiency.

Over the last two decades, we have seen the rejection of the principle which was commonly accepted in the first three quarters of a decade of antitrust existence—that a primary goal of antitrust was to protect and promote small business as opposed to large, regardless of the costs. Seen in this light, I think antitrust is really a tool of economic policy. It is nothing more, it is nothing less. It should

not take on a religious connotation. It is not a dominant tool of economic policy, but just one of many.

If you look at the history of antitrust, with its extreme swings from lethargy to aggressive enforcement, it is pretty clear that the only common denominator is that antitrust policy is a follower, not a leader. It is an explanation, not a cause; an illustration, not a reason.

The relative—and here I will retreat to simplicity for speed's sake—the relative difference between the old antitrust and the new antitrust is that the old antitrust concentrated primarily on the past—past performance; past facts; what happened last year. The new antitrust tries to look more carefully at the future—what will happen next year; what will occur if the particular conduct under question takes place.

Now, with that background, I think it is important for the committee to appreciate that while antitrust can be fine tuned to make things a little bit better, it is not a panacea, it is not going to take place of careful executive and legislative policy choices. But there may be some minor moves that could be made to improve the situation slightly. Let me turn to those.

Keeping in mind that this is not a hearing to discuss the administration's merger proposals, I nevertheless believe that the administration's merger proposals deserve careful attention by this Congress. They would codify the existing enforcement policy. Existing enforcement policy, I would submit, is much more sympathetic to, and much more able to deal with, the particular kinds of problems that this committee is focusing on today. It really would not change enforcement policy, but I think we have to realize, looking at history, that the pendulum can swing and does swing very widely in antitrust.

Current enforcement policy is a fragile mechanism and thus would be clearly strengthened by passage of the Merger Modernization Act or something similar to that. I am not wedded at all to the particular language of that bill, but it would essentially quantify the progress of the last two decades.

Secondly, the Congress might want to consider for distressed industries, however those might be defined, that some further legislative relief might be appropriate, and that would be to free mergers in those industries from challenge by private parties. It is an unfortunate fact of life that when private plaintiffs bring antitrust suits, especially merger suits, that advance national policy goals, it is accidental. It is not intentional. Private parties act with private motives. While it may be that occasionally private challenges are consistent with national policy goals, that is a coincidence, not a motivation. So Congress might want to consider whether in this particular problem area, mergers between companies in declining or distressed industries, it wants to remove the threat of private actions that may be motivated by something other than national policy concerns.

This is not a fantasy. If you look back at LTV/Republic, Cyclops challenged that transaction. In the General Motors-Toyota joint venture, Chrysler sued that transaction. Neither of those challenges were successful, but they certainly had the potential to be.

The most difficult problem in this area is where the merger of two domestic firms might create a realistic danger of anticompetitive behavior that is not outweighed by any likely efficiencies, and thus would not pass muster under today's antitrust standards.

In this case, any decision will entail certain costs and requires a determination of who is going to bear those costs; the employees and shareholders of the affected firms, through the possible failure of their companies absent the merger, or the firms' customers and eventually individual American consumers, through potentially higher prices for the firms' products.

This situation puts the problem facing this committee in sharp focus. Do we want to tax American consumers to support American producers? Do we want to allow mergers to create a serious risk of anticompetitive effects so we can enhance American export opportunities. And if we may want to make those hard choices, who do we want to make them? Antitrust agencies? Courts? Unions? Management? Some combination?

That is an extremely difficult problem. My experience tells me that trying to deal with that problem is likely to create more burdens than benefits, and I doubt seriously that such an effort will produce net benefits.

Let me just mention briefly the point on industry adjustment strategies, the notion of distressed industry cartels. This is a complex issue, but one which raises great competitive dangers. I cannot see any record, either in this country if you look back at our National Recovery Act experience, or in Europe and Japan where they have had similar kinds of procedures for some years, that suggest that such a procedure would likely be successful. It clearly would require an express antitrust exemption. It probably also would require other kinds of legislative relief, for example, to protect the companies involved from the possibility of shareholder suits and similar actions that might arise. And how you would create standards to allow that conduct without creating the potential for very broad abuse is beyond my imagination.

Thank you.

[The prepared statement of Mr. Sims follows:]

Testimony of

JOE SIMS
Jones, Day, Reavis & Pogue
Washington, D. C.

I appreciate the opportunity to participate in these hearings, designed to explore whether current antitrust law or enforcement policy should be modified to facilitate the restructuring of so-called "distressed" industries.1/

For the record, I should note that I and others in my law firm, Jones, Day, Reavis & Pogue, represented parties in several of the matters that will be discussed here this morning, including the merger of LTV Steel and Republic Steel and the General Motors-Toyota joint venture. My testimony today, however, is solely in my personal capacity; the views stated are my own, formed over 17 years as an antitrust lawyer, evenly split between the Antitrust Division of the Department of Justice and private practice.

In recent debates over the competitiveness of American industry, antitrust laws and enforcement policies have been offered both as a convenient villain and possible savior for the country's apparent international trade problems. While I am a fervent believer in the importance of antitrust as a guarantor of the free markets that have played such a critical role in American economic development, I do not believe (with some important caveats described below) that antitrust policy is either a substantial cause or a realistic cure for this country's current international competitiveness problems.

When considered against a range of other factors, such as the availability of capital, governmental assistance to or subsidization of foreign industries, relative wage rates, currency fluctuations, and research and development spending, not to mention savings rates and educational levels, the influence of antitrust policy pales. As a former head of the Antitrust Division once said, to blame the antitrust laws or their enforcement for America's current international trade

problems is like saying the Yankees lost the pennant because of their third base coach.

This is not to say that nothing could be done to make the current situation better or worse. It could easily be worse, for example, especially in the merger area, and would be if the Merger Guidelines recently issued by the National Association of Attorneys General ("NAAG") ever became national enforcement policy. Conversely, there is at least some possibility that we could improve the application of antitrust to industries in economic difficulty, although it must be recognized that none of the ideas I will discuss today is easy to implement or certain to be useful.

The Limits of Antitrust

To consider these issues properly requires an objective view of what antitrust policy is -- and what it is not. Antitrust is 97 years old, and yet there are still vigorous debates about the proper goals of antitrust, not to mention the appropriate tools for achieving these goals. These debates frequently rage right here in the Congress; indeed, I testified just two weeks ago before Senator Metzenbaum's subcommittee during hearings that reflected that debate. The disagreements are frequently spirited, with both sides seemingly certain of the rightness of their position. The very existence of this continued debate, now almost a century old, teaches us much about the limits of antitrust.

Antitrust is a form of economic regulation, different in kind but similar in objective to direct economic regulation through such agencies as the Interstate Commerce Commission ("ICC"). Indeed, the ICC sprang from the very same political and economic circumstances as did the Sherman Act; the former was enacted 100 years ago, just three years before the passage of the latter. But this close kinship to direct governmental regulation of the economy frequently gets lost in the rhetoric of antitrust.

Antitrust is a wonderful concept, fully consistent with the

American tradition to be skeptical of size and power in whatever form. But for most of its existence, antitrust has been much more popular as political rhetoric than as true governmental policy. In addition, it has always been a flexible doctrine, with the capacity to bend to the prevailing winds, whether political, economic, or social. It deserves its place with baseball and apple pie as a particularly descriptive icon of the American self-image. But it has always been (at least until recently) somewhat intellectually shabby. A wise observer of legal practices once told me (only partly in jest) that the perfect antitrust lawyer was someone with a quick but shallow mind -- a description a little too close to home to be really funny.

Antitrust used to be simple. When America was relatively young, and by far the strongest industrial nation in the world, it was popular and easy to indulge our traditional American distrust with power through a "big is bad" antitrust enforcement policy. There were probably efficiency costs to such a policy, but they weren't understood or visible, and they certainly didn't seem to be very important. As our economy became more complex, as industrial competition became more substantial, as we became more sophisticated in our understanding of how markets works, and as we have learned more about the impact of various policies -- all these trends put increasing strain on a simplistic antitrust.

Over the last two decades, therefore, antitrust has been struggling to break away from its intellectually ambiguous past -- a past that could go so far as to encompass within the antitrust laws a predominately protectionist and anticompetitive statute like the Robinson-Patman Act -- and put forth a coherent analytical framework that could be applied to solve antitrust problems.

The beginning of this trend can be traced to 1965, when President Johnson named Don Turner to be head of the Antitrust Division. Turner was an academic who had been exposed to economics and who ultimately produced the first Merger Guidelines in 1968. Turner took office in the middle of the

second decade of an expansionist antitrust period that was certainly the furthest swing of the pendulum in that direction in history. Turner laid the initial groundwork, the pendulum began to swing back in the early to mid-70's, and it has moved rather steadily since then. The Reagan Administration, contrary to popular opinion, deserves neither primary credit nor blame for this trend, only recognition for the fact that it illuminated and provided a more or less coherent policy justification for it.

Antitrust today rests on analytic economics -- not Chicago School economics necessarily (although that dominates the antitrust agencies today) but also not the structural, "big is bad" economics of the 50's and 60's. It accepts as a guiding principle that antitrust enforcement should not cause economic harm, nor should it be hostile to efficiency. It rejects the notion, commonly accepted in the first 75 years of antitrust, that a primary goal of antitrust is to protect small businesses from large, regardless of the cost. Of course, scholars, practitioners and prosecutors apply this analytical framework (and the economics that support it) in a almost infinitely varied number of ways, but only the most extreme -- a distinct minority -- still reject the primacy of economic analysis in antitrust decisionmaking.

Seen in this light, antitrust is a tool of economic policy -- nothing more, nothing less. It does not, and should not, take on religious connotations. It is not, and cannot be, a precise and omnipotent decisionmaker. How could a statute that sets forth the "Rule of Reason" as its primary interpretive principle ever be precise? It is not something that should arouse idealogical passions, although it does on both right and left. It is not a mechanism for the redistribution of wealth, nor would it be a very efficient way to do that.

Nor is it a dominant principle of economic policy. A glance at the history of antitrust, with its extreme swings from lethargy to aggressive enforcement, shows that the only common denominator is that antitrust policy follows, it does

not lead. Antitrust is most often an explanation, not a cause; an illustration, not a reason.

Let me suggest, with only minor oversimplication, that the difference between the old antitrust (pre-1975 or so) and the new antitrust, other than language, can be summed up in one concept: The old antitrust looked primarily to the past, the new antitrust looks to the future. This is most obvious in the 1984 Department of Justice Merger Guidelines ("1984 Guidelines"), but it can also be seen in earlier Supreme Court opinions like GTE Sylvania,2/ BMI,3/ and General Dynamics.4/ Today, the important analytical issue is what will be the likely future impact of the conduct under examination; the past is instructive, but not determinative. As I mentioned earlier, this new antitrust has been growing for more than 20 years; the Reagan Administration deserves the credit for taking it out of the closet and institutionalizing the analytical approach. Despite a few dissents from NAAG and a fringe of populists, this forward-looking approach is now clearly the accepted and dominant mode of antitrust analysis, both in the agencies and in the courts.

With this somewhat lengthy introduction, let me now turn to the central issue of these hearings: Can we fine-tune antitrust policy or enforcement to advance our national interests, whatever they may be, in dealing with industries facing economic difficulty? The focus today is steel, but the list of industries in trouble is long and includes many of our basic industries. Thus, these hearings ask an important question, not made less so because it is so difficult to answer.

My answer is a qualified yes. There are actions that Congress should consider that might make the process work better. But antitrust is not a panacea; it cannot appropriately be charged with deciding, for example, whether the purchasers of steel should pay a higher price so that the employees and shareholders of steel companies will not suffer the agony of bankruptcy. It cannot properly be asked to balance a higher trade deficit against lower domestic prices. Antitrust is a limited tool for use in limited situations; it

is not a substitute for executive or legislative policy choices, hard as they may be. With these limits in mind, let me turn to the questions posed by the Committee for these hearings.

Modification of Merger Standards for Import-Affected or Declining Industries

One of the focal points of the debate concerning application of the antitrust laws to "distressed" industries has been whether a different standard should be applied to analyze mergers in such industries. Mergers, joint ventures, and other forms of consolidation can be one of the most efficient ways for industries and firms characterized by overcapacity to contract. Where no single firm might be willing to do so, a combination of firms might be willing and able to close excess capacity. In order to eliminate possible antitrust concerns generated by this process, various proposals have been advanced to establish a different standard for evaluating mergers in such industries.

One of the most recent examples was the Administration's proposal in the last Congress entitled the "Promoting Competition in Distressed Industries Act" (S. 2161). Some might argue that this bill (which, despite the general interest in "competitiveness" issues, went absolutely nowhere) was not really an antitrust bill since it would have amended the Trade Act of 1974 5/ to create a new alternative remedy when there is a finding that imports have caused substantial injury to domestic competition. In addition to the duties, quotas, or other restrictions on imports currently available, the legislation would have added a new option: the President could choose antitrust relief instead of (but not in conjunction with) the options available today.

This antitrust relief would consist of two elements. First, the merger would be tested against a higher threshold

standard and, in fact, would be exempt from antitrust challenge unless the transaction would substantially increase the ability of "the resulting firm" to exercise market power.6/ The second, and perhaps more significant, element was the restriction on who may sue. The proposed legislation would totally bar private lawsuits, thus leaving only the Attorney General and the FTC with authority to challenge a qualifying transaction.

While I believe the Promoting Competition in Distressed Industries Act had a number of attractive features -- particularly the alternative it offered to quotas, tariffs, and other import restrictions -- I think one of the reasons it attracted so little support was the recognition that relatively few mergers would come within its terms that would not pass muster under current merger standards.

Under the 1984 Merger Guidelines as currently applied by the Department of Justice, many mergers in industries facing significant import competition will not generate antitrust concern because the existence of imports establishes the lack of entry barriers and the disciplining effect of foreign competition. When foreign capacity is properly included within the relevant market analysis, the market shares of the merged firms are unlikely to raise competitive concerns. No problem thus arises under current law and the merger would pass muster, without resort to a different standard for "distressed" industries.

In other situations, even after adjusting for foreign competition, the market shares of the combined firms may give rise to some antitrust concern but identifiable efficiencies associated with the transaction (which are expressly recognized under the current Guidelines) tip the balance in favor of approval. The LTV-Republic merger is one example of such an efficiency-creating merger; the combination did in fact result in significant efficiencies, but even the more efficient combined company was overwhelmed by an ever-increasing flood of lower-priced imports. Similarly, the FTC's approval of the GM-Toyota joint venture, which permitted a manufacturing joint

venture between two of the world's largest automobile manufacturers, was expressly premised on a strong showing of expected efficiencies.7/ Again, no problem is created under current law as applied by the federal enforcement agencies, and there is no need for application of a different standard for distressed industries.

Thus, with the possible exception I will discuss later, today's antitrust laws properly applied will not impede useful mergers or other combinations in distressed industries. But the key is proper application. The current interpretation and enforcement of the antitrust laws, especially Section 7 of the Clayton Act (the merger statute), is very fragile. History teaches us that the antitrust pendulum can swing fast and far. Based on prior action and speeches, for example, if the Attorney General of New York or his antitrust chief became the head of the Antitrust Division or the FTC, the progress of the last 20 years could be threatened.

The impact of such a change is suggested by considering the Merger Guidelines recently issued by the National Association of State Attorneys General ("NAAG Guidelines") as a statement of their enforcement policy. The NAAG Guidelines permit only a highly limited evaluation of foreign competition. While the 1984 DOJ Merger Guidelines accord equal weight to <u>likely or probable</u> future imports, the NAAG Guidelines would include only <u>actual</u> demonstrated imports for purposes of market share analysis. Similarly, the NAAG Guidelines grant a much less expansive role to efficiencies in the balancing of competitive and anticompetitive effects. The NAAG Guidelines seek to return to the old antitrust, with primary focus on the past instead of the future.

The effect of these differences from existing enforcement policy is that a much larger number of mergers is likely to be found anticompetitive under the NAAG Guidelines, especially (and ironically) mergers in industries ravaged by foreign competition. This, of course, would give rise to a greater number of the very difficult cases discussed later in this testimony, in which employee and shareholder interests must be

balanced against those of consumers. The NAAG Guidelines fortunately are not relied on as a basis for federal enforcement decisions, but if they were, I would have significantly different views about the need for specific legislation for distressed industries.

Some have suggested that the perceived lack of certainty as to how merger proposals will be analyzed has a chilling effect on business decisionmaking. Certainly, the prospect of the pendulum swinging back can have that effect. The best way to address this concern is not to establish a different standard for distressed industries, but rather to codify the basic analytic principles embodied in the 1984 Guidelines as the uniform standard for applying Section 7. It has been almost 37 years since the last legislative amendment to Section 7 was passed8/ and the changes in world competitive conditions since that time have been enormous. The 1984 Guidelines reflect these changes and the concepts underlying them should be included as part of the basic merger statute.

A legislative proposal that would generally accomplish this end is the "Merger Modernization Act of 1987," recently introduced as part of the Administration's omnibus "Trade, Employment, and Productivity Act of 1987" (S. 539).9/ Like a predecessor bill introduced in the last Congress, the Merger Modernization Act would, in effect, amend Section 7 to codify the 1984 Guidelines. It does so in three major ways. First, the Act replaces the "may" and "tend" language of Section 7 -- pregnant with the potential for abuse by populist antitrust prosecutors -- with more prescriptive "will" and "significant probability" language. In parallel with this change, the Act substitutes the more general "lessen competition" and "create a monopoly" language with "substantially increase the ability to exercise market power," thus codifying the DOJ's current definition of those historically ambiguous terms. Finally, the Act includes a checklist of six factors that a court "shall consider" in evaluating a merger. These factors are a shorthand collection of the key criteria of the 1984 Guidelines, including ease of entry (specifically referencing

foreign firms), the ability of fringe firms to increase production, and possible efficiencies.

Passage of the Merger Modernization Act (or something similar) would produce no significant change in the way in which mergers are currently analyzed. It would also provide much clearer guidance on dealing with foreign imports and potential efficiencies, two key factors in merger analysis involving distressed industries. Finally, by specifically incorporating these standards in a legislative enactment, it should constrain private and state actions under Section 7 that may reflect parochical concerns rather than the national interest. It seems a modest and desirable legislative effort that would benefit not only distressed industries but American businesses and consumers as a whole.

Congress might want to go farther, however, and consider whether mergers and joint ventures in distressed industries should be free from the risk of challenge by private plaintiffs, who carry out public policy goals only coincidentally. The model might be the National Cooperative Research Act of 1984 ("NCRA"),10/ which accords special antitrust treatment to joint research and development ventures. That Act prohibits the use of the per se rule to judge the legality of any joint venture covered by the statute, and limits private plaintiffs to only actual damages in any successful challenge to the conduct.

The NCRA was intended to promote joint R&D, by removing some of the antitrust risk that was believed to have inhibited such efforts. If Congress believes that mergers and joint ventures in distressed industries are discouraged by the potential for private antitrust attacks, it could eliminate that problem rather easily. This is not a fantasy; you will recall the Cyclops challenge to the LTV-Republic merger, and the Chrysler attack on the GM-Toyota joint venture. Competitors, customers, suppliers, state attorneys general -- all might have reason to oppose a merger or joint venture that might have very positive benefits to the companies involved and very positive international implications.

If Congress was comfortable with review by the federal antitrust agencies, it could simply eliminate private merger challenges to those transactions in industries that, by some specified standard, were "distressed." Of course, the precise standard would no doubt require some thought (lack of profits, permanent excess capacity, poor future prospects might provide some guideposts), but the concept seems a relatively simple step toward greater certainty.

The most difficult problem in this area is where the merger of two domestic firms will create a realistic danger of anticompetitive effects (e.g., an increase in prices) that is not outweighed by any likely efficiencies. In this case, any decision will entail certain costs and requires a determination of who will bear those costs -- the employees and shareholders of the affected firms (through the possible failure of their companies absent the merger) or the firm's customers and, eventually, individual American consumers (through potentially higher prices for the firm's products).

This situation puts the problem in sharp focus. Do we want to tax American consumers to support American producers? Do we want to allow mergers that create a serious risk of anticompetitive effects so that we can enhance American export opportunities? And if we may want to make those hard choices, who do we want to make them? Antitrust agencies? Courts? Unions? Pursuant to what standards?

My experience tells me this will be a very rare creature indeed; there is no history of monopolists behaving like charities. Organizations that accumulate market power have a tendency to use that power for their parochial interests, which may not coincide with the national interest -- and if they do, do so accidentally. This is a situation where I do not believe antitrust can be asked to provide an answer, other than its normal one -- to prohibit mergers that are on balance anticompetitive. If other national policies are to override this judgment, some new regulatory mechanism will have to be

created to make those judgments. I seriously doubt that such an effort would produce net benefits to this nation.

Still, there are changes that could be made that might deal more effectively even with this situation. The Newspaper Preservation Act ("NPA")11/ gives us one useful illustration. That statute was passed after the Supreme Court, in Citizens Publishing,12/ interpreted the failing company doctrine so strictly that it became practically useless. The failing company doctrine is one of those logical islands in the sea of antitrust ambiguity. It provides that, if the only alternative to an anticompetitive merger is bankruptcy, the merger will be permitted. Since a competitor will be eliminated in either case, it makes sense to allow the least disruptive alternative to proceed.

In Citizens Publishing, however, the Court concluded that this concept could only be applied where the companies could prove that receivership or reorganization through Chapter 11 bankruptcy proceedings were not feasible alternatives. Obviously, for most situations, such a showing is impossible. Congress reacted quickly; a year later, it passed the Newspaper Preservation Act, an example of distressed industry antitrust legislation. The Act recognized that the newspaper business was declining, and created procedures to allow competing newspapers to establish joint operating arrangements, maintaining separate editorial voices while taking advantage of economics of scale.

The NPA is not a good model for distressed industries generally, because its special focus is the preservation of independent editorial voices. But it does illustrate a potential problem with the 1984 Guidelines. They continue to assert a very narrow articulation of the failing company defense which, if applied literally, could unnecessarily impede mergers between firms that, while not in danger of immediate collapse or beyond Chapter 11 reorganization, still are not long-term viable competitors. The LTV-Republic transaction is a perfect example of a transaction that might not pass muster under Citizens Publishing, or perhaps even under the 1984

Guidelines version of a failing company defense.13/ Yet, subsequent events have made it only too clear how tenuously both companies were clinging to viability.

Congress may wish to consider the possibility of a legislative articulation of a failing company (and failing division) defense. This could be limited to distressed industries, however defined, or Section 7 could be amended so as to apply the new definition generally. The specific standards would require careful attention, but a legislative preemption of the more extreme versions of the failing company or division defense could be useful, especially in dealing with transactions in distressed industries.

The 1984 Guidelines, of course, have other problems. They imply a mathematical precision governing merger analysis that simply does not exist, either in real world markets or in the enforcement decisions of federal antitrust agencies. A range of considerations beyond simple market share affects the analytic calculus for each individual merger, and the 1984 Guidelines do not contain an express mechanism for including these factors.

The inability to rely solely on the mathematical formula contained in the 1984 Guidelines is perhaps best demonstrated by the Department's own enforcement patterns. Although the 1984 Guidelines state that the Antitrust Division is "likely" to challenge any merger resulting in a post-merger Herfindahl-Hirschman Index ("HHI") of between 1,000 and 1,800 and an increase of at least 100 points, challenges to mergers with a post-merger HHI of less than 1,800 have been rare. A review of recent merger challenges suggests that, as a practical matter, a 2,000 rather than a 1,000 HHI is the real danger line and that a 200-point increase rather than one of 100 points is the red flag triggering an enforcement action.14/

Still, this and other problems with the 1984 Guidelines are relatively minor and probably do not require Congressional attention. With the exception of the failing company doctrine and the other proposals mentioned earlier, I doubt that

additional Congressional tinkering with merger policy would produce significantly better results.

Industry Adjustment Strategies

A more complicated question is whether joint actions short of mergers or joint ventures ought to be encouraged in distressed industries and if so, under what standards and subject to what oversight? For example, there are various proposals now being considered in Congress that would require industries petitioning for import relief under Section 201 of the Trade Act to discuss "industry adjustment strategies" among themselves, labor and government and to submit an adjustment plan as part of their petition. The Committee has asked whether this process would require a legislative exemption from the antitrust laws, and if so, whether such an exemption is desirable. I view this as a very complex issue, but in the end I conclude that the likely costs of such a procedure would probably outweigh any benefits.

It may be of interest to the Committee to know that both the European Economic Community ("EEC") and Japan have in place procedures to permit cartel activity to aid distressed industries. The EEC provides an exemption procedure under Article 85(3) of the Treaty of Rome to immunize various types of business conduct from antitrust liability where certain conditions are met. In applying this procedure, those responsible for administering EEC antitrust laws have stated that they "naturally take into account intensity of international competition in the Common Market or a substantial part of it" in examining restrictive practices.15/ In recent years, rationalization agreements in steel and synthetic fibers were approved, which allowed a reduction in excess capacity caused in part by sales from non-EEC sources.16/

In Japan, the history of industry adjustment policies goes back to 1953, when the Antimonopoly Act was amended to allow

depression and rationalization cartels approved by the Japanese Fair Trade Commission. A large number of cartels were approved under this procedure, and by 1963 such cartels affected more than 28 percent of Japan's manufacturing output.17/ In the 1970s and 1980s, specific legislation was passed to guide capacity rationalization and other activities in designated "declining industries" including electric furnace steelmaking, aluminum smelting, chemical fibers, chemical fertilizers, ferroalloys, pulp and paper, and petrochemicals.18/

Of course, the United States has had considerable experience with very similar activity once before, with the National Recovery Administration ("NRA") during the Great Depression. The NRA Blue Eagle flew over much of our economy, and business and government worked together to improve the performance of "distressed industries." Our experience with this form of industrial policy was not good, and many of the regulatory concepts that originated with the NRA and related attempts to replace market forces with government or private regulation are still with us today, long after the crisis that generated the response has disappeared.

The history in this country of substitutes for market regulation -- including the costs, the dislocations, the rigidities that have almost always accompanied direct economic regulation -- should make anyone familiar with it extremely skeptical of the usefulness of this particular economic tool. This is certainly true for those, like me, whose training and experience is in antitrust enforcement and counseling. Government bureaucrats are not good substitutes for market forces; industry cartels are not good substitutes for competitive markets. To an antitrust-trained lawyer, these are axioms beyond question that require no further proof.

Thus, you can imagine my surprise when the head of the Antitrust Division, in announcing that agency's initial opposition to the LTV-Republic merger, suggested industry-wide rationalization discussions, monitored by the Antitrust Division, as a substitute for the merger. Nevertheless, the companies carefully considered the possibility at the time, and

concluded that it simply was not workable. Different companies had different problems, and perceived different solutions. In addition, all managers have primary fiduciary and legal obligations to their particular employees and shareholders. That makes it difficult, if not impossible, to submerge the individual interests of their company to those of the industry as a whole, even if they wanted to.

A good illustration of this latter problem took place during one of the troubled bank episodes in the 1970's. The particular troubled bank, a large New York City institution, was a matter of great concern to the Federal Reserve Board, and Chairman Arthur Burns asked the other large New York banks to help with the situation by agreeing to take over certain of the troubled bank's loan portfolio. Of course, the Chairman of the Fed, especially a personage like Dr. Burns, can be very persuasive when he wants to, and the New York banks looked very carefully at the possibilities. In the end, however, they came back with the answer that their individual responsibilities to their shareholders simply didn't allow them to, essentially, give away their money to a competitor just because they could afford to do so. That led Dr. Burns to utter one of the more cutting, albeit unjustified, remarks I have ever witnessed, especially since it was delivered to no less a personage then Walter Wriston, then the chairman of Citicorp: "I thought," said Dr. Burns, "that I was dealing with statesmen, not accountants."

This problem, notwithstanding Dr. Burns' criticism, is a real one. Shareholders' suits are common today following every major corporate decision, no matter which way it goes. No well-counseled board of directors would be comfortable agreeing to some industry adjustment plan that they could not defend as being in their company's individual self-interest, and such a plan, almost by definition, would not be in every company's individual best interest.

Thus, I don't see distressed industry cartels as a realistic possibility. The experience in Europe and Japan, cultures much more receptive to such a procedure, is open to

serious debate and certainly has not been clearly positive. In this country, for such a process to have any chance of success would require, at a minimum, express exemption from the antitrust laws and protection from shareholder and similar suits that might arise. How standards could be crafted to create such protection without creating an enormous potential for abuse is beyond my ability to imagine.

Conclusion

There is always a tendency to seek a quick fix to a difficult problem. But many difficult problems don't have a quick fix available. We must recognize that we are more than 100 years into the Industrial Revolution that catapulted America into the position of the dominant economic power in the world. It is only natural that the cycle would sooner or later favor other countries. We must continue to look to our comparative advantage among nations. And we certainly cannot expect antitrust -- whose role is to encourage competition and change -- to be useful in slowing down or cushioning that change. If a cushion is what is needed, it must come from some other source.

I live in Reston, Virginia, a planned community 25 miles from Washington that, until recently, was a quiet suburb. With the opening of a toll road to Dulles Airport has come enormous commercial growth, reminding me once again that Brooklyn used to look like Reston. Countries have growth curves just as do communities, and a curve is by definition not a straight line always trending up.

What this country has to learn to deal with is the dislocations caused by transitions, from one town to another, from one industry to another, from one kind of economic strength to another. The antitrust laws have a very small role to play in that process, but the changes I have suggested today might make antitrust policy more of a help than a hindrance.

END NOTES

1/ Of course, there are a variety of reasons why industries could experience economic difficulties, but any focus today is on those industries whose problems are, at least in significant part, caused by increased international competition.

2/ Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36 (1977).

3/ Broadcast Music, Inc. v. Columbia Broadcasting Sys., Inc., 441 U.S. 1 (1979).

4/ United States v. General Dynamics Corp., 415 U.S. 486 (1974).

5/ 19 U.S.C. § 2101 et seq.

6/ The precise effect of this standard was unclear, but it was presumably intended to require that the resulting firm be "dominant" within the meaning of the current Guidelines before the merger would be prohibited. See Pitofsky, "Antitrust and Problems of Adjustment in Distressed Industries," 55 Antitrust L.J. 21, 25 (1986).

7/ See General Motors Corp., 103 F.T.C. 374, 387-88 (1984) (statement of Chairman James C. Miller III).

8/ Cellar-Kefauver Anti-Merger Act, Pub. L. No. 81-899, 64 State. 1125 (1950).

9/ 133 Cong. Rec. S2105 (Feb. 19, 1987).

10/ 15 U.S.C. §§ 4301-05.

11/ 15 U.S.C. §§ 1801-1804.

12/ Citizens Publishing Co. v. United States, 394 U.S. 131 (1969).

13/ Of course, the NAAG Guidelines are even more stringent, especially in the application of this concept to a subunit of a firm. In fact, the so-called "failing division" problem is most often the real problem today, when firms produce multiple products. The NAAG Guidelines state that "failing division" claims will be viewed "with the utmost skepticism." This is a perfect illustration of the knee-jerk aggressiveness that characterizes the NAAG Guidelines.

14/ See Sims & Lande, "New Forces Chip Away at Agencies' Policy of Antitrust Abandonment," Legal Times (Apr. 20, 1987) at 14.

15/ See Pitofsky, supra note 6, at 23.

16/ Id. at 23-24.

17/ See M. Frankena & P. Pautler, "Antitrust Policy for Declining Industries," FTC Staff Report (Oct. 1985) at 82-83.

18/ Id.

The CHAIRMAN. Thank you very much, Mr. Sims.

Professor Adams?

Mr. ADAMS. Mr. Chairman, Senators, members of the committee, the prepared statement that we have submitted was jointly drafted by Professor Brock of Miami University, of Ohio, and myself. I assume that is going into the printed record.

The CHAIRMAN. Yes, the entire statement will be printed in the record.

[The prepared statement of Mr. Adams and Mr. Brock follows:]

Prepared Statement

by

Walter Adams
Distinguished University Professor
and Past President
Michigan State University

and

James W. Brock
Associate Professor of Economics
Miami University (Ohio)

Mr. Chairman, members of the Committee. We are pleased to appear here today, and to address two key questions of concern to the Committee: (1) Do mergers and corporate bigness promote good economic performance? (2) Are cartelization and industry-labor-government planning viable policies for rescuing import-impacted American industries?

These hearings, and the questions they pose for analysis, are especially relevant at this time. As the Committee knows, our country seems to confront seemingly insurmountable economic problems: a persistent decline in international competitiveness, a progressive loss of markets to foreign producers, a successive accummulation of record foreign trade deficits, historically low rates of productivity growth, and lagging creativity and innovation.

At the same time, the country is gripped by one of the most massive merger and consolidation movements in history, with new all-time records for corporate acquisitions set--and broken--in each of the last four years; the nation's antitrust laws are once again under attack--from the right of the political spectrum, as well as from the neo-liberal left--as dangerously counterproductive anachronisms; and, in our frustration, we are tottering on the precipice of a rampant, destructive protectionism not seen for 50 years.

In the face of these travails, it is important to face the facts and to examine the evidence in a clinical, objective, and dispassionate manner. If we are to fashion an effective prescription for curing the current malaise, we must first make the correct diagnosis. We must distinguish between symptom and disease. We must be honest with ourselves. In formulating sound public policy, we cannot afford the luxury of substituting rhetoric for reality.

I. Bigness, Mergers, and Economic Performance

In our recently published book, The Bigness Complex,[1] we present extensive documentation to show that neither mergers, nor corporate bigness, promote good economic performance. To the contrary, we find that, more often than not, mergers and corporate giantism undermine efficiency in production and technological innovation. These findings apply to American industry generally, and to such "import-impacted" industries as steel and automobiles, specifically.

AMERICAN INDUSTRY GENERALLY

1. Operating Efficiency. Corporate mergers and acquisitions, and more generally, disproportionately large corporate size, do not promote efficiency in production at least cost.[2]

First, on the conglomerate merger front, diversified giantism has enmeshed American industry in a snare of organizational disorder and ill-fitted bureaucracy. "Our major corporations have blossomed into multiproduct, multidivisional, multi-locational hydras," Business Week recently reported:

> They became far too diverse for any one corporate leader to embrace. So one formerly monolithic company after another decentralized into such things as profit centers, strategic business units and the like. Every profit center had to have a general manager or a divisional president. Corporate headquarters had to have new staff people to whom the divisional people would report. Layer upon layer of management jobs were added to the structure.3/

According to the most exhaustive review of the statistical evidence, conglomerate mergers have not on average resulted in enhanced economic efficiency. The current wave of divestitures of formerly-acquired operations by conglomerate giants like ITT and Gulf & Western, as well as by diversified oil giants like Exxon and Mobil, corroborates the point. In fact, upwards of 40 percent of corporate marriages consummated in the 1960's and 1970's have ended in divorce.

Second, disappointing corporate marriages, and the concomitant operating inefficiencies, are not limited to conglomerate mergers alone. Instead, they are characteristic of mergers and acquisitions generally--whether horizontal, vertical, or conglomerate. "When one looks at the real effects of mergers on operating profitability, growth in sales or market shares," economist Dennis C. Mueller concludes, "one finds no evidence . . . that mergers have improved internal efficiency."[4] An impressive list of other investigators report similar findings.[5]

Third, such evidence is not new. For example, Livermore's analysis of the turn-of-the-century merger movement in the United States revealed that nearly one-half of the consolidations between 1888 and 1905 subsequently failed; if "success" attributable to patents or monopoly power is excluded, the failure rate exceeds 50 percent.[6]

Fourth, such evidence is not confined to the United States. With respect to the United Kingdom, for example, one authoritative study reports: "Taking a broad sweep of the results, the picture is one in which it is difficult to sustain the view that merger is in fact a necessary or sufficient condition for efficiency gain. In many cases efficiency has not improved; in some cases it has declined, in other cases it has improved but no faster than one would have expected in the absence of merger. . . . More generally we have various pieces of evidence from our investigations that merger has led to no apparent improvement in international competitiveness or export performance. . . ."[7] Nor is the experience of the United Kingdom unique.[8]

Finally, it is significant that practical people in the real world are today recognizing that, where operating efficiency is concerned, "bigger is not necessarily better," and often, "small can be beautiful." Today, Business Week reports, "in a rebellion against the conventional wisdom, dozens of manufacturers . . . are embracing a new philosophy. Their managers are suddenly talking about 'diseconomies of scale.' They are replacing huge manufacturing complexes with new, smaller plants." They are, according to the magazine, "turning away from bigness to find efficiency."[9]

2. Innovation. Empirical evidence also suggests that merger mania, and corporate bigness, retard, rather than advance, technical innovation.[10]

Independent inventors--garage mechanics and backyard tinkerers, toiling on their own, with limited funds and simple equipment--have been found (in one landmark study) to be responsible for more than one-half of seventy inventions considered by experts to be the most important of the twentieth century. Smaller companies exert significantly greater research "effort" by spending proportionately larger shares of their revenues on research and development. Smaller companies also conceive and commercialize inventions at far lower cost than do corporate giants. Moreover, small firms are more prolific, and more efficient, sources of invention and innovation. For example, in a study of more than 300 major technological innovations in the United States, the National Science Board found: "For the whole 1953-73 period, the smallest firms produced about 4 times as many major innovations per R&D dollar as the

middle-sized firms and 24 times as many as the largest firms." At the same time, expert Edwin Mansfield finds no significant tendency for corporate giants to conduct a disproportionately large share of risky R&D work; in fact, he finds that corporate behemoths carry out a disproportionately small share of R&D aimed at entirely new products and production processes.

Nor do megamergers appear conducive to technological advance. For example, a number of analysts point to bureaucratic "culture shock" in explaining the disastrous performance of small, high-technology firms after they have been acquired by corporate colossi: "The giants' many layers of bureaucracy often paralyze the freewheeling entrepreneurial style typical in the high-tech world," the Wall Street Journal has found.[11] Conversely, managers of divested operations released from control by corporate giants are "freed from endless hours of explaining proposals to corporate headquarters and waiting months, often years, for approvals on new projects. . . ."[12]

Indeed, it is significant that for innovation, as for operating efficiency, business leaders today are beginning to reject the bigness mystique. For example, when he was questioned on March 19, 1985 about information processing systems for the Saturn small-car project, the Chairman of General Motors, Roger B. Smith, confided, "Where is all this great stuff coming from? It's not really coming out of IBM . . . but it's coming out of little two- and three-man companies, because they're finding out that 40 guys can't do something that three people can do. It's just the law of human nature."[13] Other corporate leaders, both here and abroad, are struggling to escape the inventive backwardness of bigness by launching small, organizationally separate "start-up" subsidiaries which, they anticipate, will be more inventive and more entrepreneurial in spirit.[14]

"IMPORT-IMPACTED" OLIGOPOLIES"

1. The Steel Industry. The preceding general findings are especially valid in the case of the American steel industry. In fact, if merger-induced giantism really were conducive to competitiveness, then big American steel companies should be the efficiency and innovation marvels of the world. Clearly they are not.

First, to an almost singular degree, bigness in steel is the product of decades of combinations and consolidations, beginning at the turn of the

century, and continuing--uninterrupted--down to the present day. Painstakingly researched reports by the Federal Trade Commission, and the House Select Small Business Committee, reveal that all of America's steel giants grew to their present size through merger and acquisition.[15] The U.S. Steel Corporation (now USX), for example, at its inception in 1901 came into being--literally overnight--through a massive amalgamation of nearly 180 formerly independent plants, and controlled at the outset upwards of 70% of the American market. Bethlehem Steel was incorporated in 1904 as a combination of ten producers; between 1914 and 1945, it acquired thirty-three other steel firms. Republic, Jones & Laughlin, and Armco exhibit a similar genealogy.

Consolidation in steel has continued apace. In 1968, Wheeling Steel (then the industry's 10th largest firm) merged with Pittsburgh Steel (the industry's 16th largest firm). In 1971, National Steel (4th largest) acquired Granite City Steel (13th largest). In 1978, Jones & Laughlin (7th largest) was merged with Youngstown Sheet & Tube (8th largest). And in 1984, LTV (the owner of the combined Youngstown/Jones & Laughlin operations) acquired Republic Steel, thus consummating a merger between two of the industry's five largest producers.

Second, such merger-induced giantism has scarcely promoted operating efficiency in steel. Over fifty years ago, a management consulting firm retained by U.S. Steel Corp. reported the nation's largest steelmaker to be:

> a big sprawling inert giant, whose production operations were improperly coordinated; suffering from a lack of long-run planning agency; relying on an antiquated system of cost accounting; with an inadequate knowledge of the costs or of the relative profitability of the many thousands of items it sold; with production and cost standards generally below those considered everyday practice in other industries; with inadequate knowledge of its domestic markets and no clear appreciation of its opportunities in foreign markets; with less efficient production facilities than its rivals had. . . .16/

Today, more than a half-century later, U.S. Steel is described by Business Week as "one of corporate America's most hierarchial, bureaucratic managements . . . an inbred, centralized, autocratic bureaucracy that stifle(s) change."[17]

Third, Big Steel has been devastated by far more efficient foreign producers. Even more significant, it has also been outperformed at home by vastly smaller, nonintegrated, super-efficient American "minimills." According to steel industry analyst Joseph C. Wyman, "mini-mills often can sell their products for $300 a ton and make a 10 percent profit, while integrated companies might sell the same product for $450 and make no

money." (Nor are minimill costs low because of "slave" wages; workers at Raritan River Steel, a successfull minimill, are paid an average hourly wage of $18, compared to average wages of $22 per hour at big integrated mills. In fact, the economies of small size are so great that even when minimill labor costs are higher, they are offset by superior productivity performance.) In the production of wire rods, bars, and light structurals, International Trade Commissioner Paula Stern has found it obvious "why the integrated producers lost so much of the market to the mini-mills. The latter are modern and efficient mills dedicated to the production of one or two products. The efficiency of their technology, management, and cost control techniques enables mini-mills to keep their prices low."[18] For this important reason, a number of studies find that small, efficient minimills are able to undersell foreign producers in the U.S. product markets in which they compete.[19] That is, "Little Steel" has prevailed in the market through efficiency, not only against domestic giants, but against such "awesome" rivals as "Japan Inc."

Fourth, elephantine size has retarded technical innovation in steel. The U.S. steel oligopoly has lagged, not led, in adopting major technological breakthroughs and innovations. In the case of the oxygen furnace, for example, and despite the fact that the process entailed large cost savings, Big Steel ignored this development and, instead, in the 1950s "bought 40 million tons of the wrong kind of capacity--the open hearth furnace." It was an investment that Fortune magazine pointed out "was obsolete when it was built." The same is true for continuous casting: In 1985, when Japanese producers were continuously casting approximately 90% of their steel, the American rate was about 40% (most of which incidentally was carried out by U.S. minimills, rather than by the integrated steel oligopoly).

Finally, it is significant that in 1958, when in a rare development the government intervened in the steel merger process to prevent Bethlehem from acquiring Youngstown, the outcome was remarkably beneficial: once the avenue of expansion via merger was blocked, Bethlehem proceeded to do what it earlier had pleaded was impossible; it constructed a completely new facility at Burns Harbor, Indiana, "the only integrated green-field blast furnace-oxygen converter rolling mill complex built during the 1960s and 1970s to provide a U.S. counterpart to the modern steel-making capacity growing by leaps and bounds abroad."[20] One can only wonder what the state of the steel industry might be today if the antitrust agencies had blocked the spate of mergers and

acquisitions that produced Big Steel, beginning with the United States Steel Corporation in 1901.

In sum, the evidence in the steel industry shows that megamergers are not the path to competitive economic performance in "import-impacted" industries. Nor are giant, bloated "corpocracies" the solution. Merging losers will not produce world-class winners. The accummulation of eight decades of economic evidence suggests that the opposite is true. The recent collapse into bankruptcy of the giant LTV-Republic steel combine--only two years after its creation--underscores the point.

2. The Automobile Industry. The evidence in autos is painfully similar to what we have seen in steel. Sheer size has not been a guarantor of production or innovation efficiency. Nor has it assured the international competitiveness of the Big Three. Nor has it enabled them to defend their domestic markets from erosion by foreign competitors.

If merger-induced size were a major determinant of superior performance, General Motors should not only be a national but an international champion. To be sure, it is the world's largest auto producer. It is more than twice as big as the two largest Japanese car companies combined. Yet it has the highest per-car production costs in the industry. Its high degree of vertical integration in parts and components production seriously impedes its flexibility and adaptability. It has effectively abandoned the "economy" segment of the U.S. market to foreign producers, and is now losing the "medium" and "luxury" segment as well. Most embarrassing of all, the firm--by its own admission--has been forced to turn to "joint ventures" with smaller foreign rivals in a struggle to learn how to make cars economically.

In spite of their protestations to the contrary, the current difficulties of the Big Three are not attributable to imports. Rather, these difficulties are the result of oligopoloid giantism and a non-competitive industry structure at home which has bred cost inefficiency, poor productivity, lethargic innovation and, most generally, the bureaucratic dry-rot of unchallenged oligopoly power. These difficulties are not likely to be cured by additional acquisitions or further escalation in company size. Experience would point in a quite different direction.

II. Cartelization, Tripartite Planning, and Economic Performance

Sectoral planning on an industry-by-industry basis, and relying on explicit or tacit industry-labor-government cooperation, has not been a

felicitous experiment in American economic statecraft. Based on experience, we should hesitate to embrace it as a blueprint for curing the malaise of "import-impacted" industries.

In the abstract, it would not be impossible to formulate a systematic, coherent, organically consistent policy to support "mature" (sunset) industries. This would be feasible if two central assumptions implicitly made by advocates of tripartite planning were valid; that is, if (1) a sectoral government policy were designed and administered by Platonic philosopher-kings on the basis of rational economic (rather than political) criteria, and if (2) the substitution of labor-management-government cooperation for adversarial confrontation were in fact conducive to the improvement of economic performance. But, alas, to paraphrase John Dewey, saints dream of brave utopias, while burly sinners rule the world. Contrary to the pious hopes of the industry-labor-government complex, powerful vested interests--more intent on lessening the pains of economic change than on improving economic performance--would almost inevitably politicize this policy mechanism and transmute it into a system of government protectionism and government bailouts. The policy would become a blueprint for a corporate welfare state.

This prognosis is not a matter of speculative conjecture or an ideological commitment to free enterprise economics. Rather, it is based on an analysis of the contemporary power structure and the realities of political economy. It is a projection of our historical experience with sectoral industrial policies--the regulation of trucking and airlines, the import restraints in steel and automobiles, the subsidization of nuclear power generation, the bailout of industrial giants on the verge of bankruptcy. In each of these circumstances, government acted not as a protector and promoter of the public interest, but as a handmaiden of politically powerful special interests.

1. The Regulated Sector.[21] Here, industry-labor-government cooperation was administered by "independent" regulatory commissions which converted inherently competitive industries like trucking and airlines into legalized cartels. The result was not an improvement in economic performance but a systematic elimination of competition and its replacement by a scheme of governmental protection. At the hands of the Interstate Commerce Commission and Civil Aeronautics Board, for example, the power to license became the power to exclude; control over rates turned into an instrument of price supports; and authority over mergers became a mechanism for fostering

concentration. The industries became legalized, government-protected cartels--what former FTC chairman Lewis Engman called "federal protectorates, living in the cozy world of cost-plus, safely protected from the ugly spectres of competition, efficiency, and innovation." Industry, labor, and government regulators all had a vested interest in this quintessential protectionism. Each derived predictable benefits from symbiotic cooperation. Industry was immunized from competition in the product market, labor was free to seek noncompetitive wage increases, and government regulators were able to perpetuate a counter-productive, wasteful bureaucracy.

2. "Import-impacted" Industries.[22] Here, experimentation with industry-labor-government cooperation has been implemented by a scheme of protectionism and international cartelization. In steel and automobiles, for example, government protection has been accorded to entrenched oligopolies that had fallen victim to decades of wage/price escalation and technological lethargy. Here again, however, tripartite cooperation (or, more accurately, tripartite collusion) has not been conducive to improving economic performance. On the contrary, it has tended to delay or suppress the adjustments that competition would have forced upon the afflicted industries.[23]

In justifying the need for protection, spokespeople for the labor-industrial complex identified foreign competition as the tête de turc. Import restrictions were essential, they said, to provide the "breathing space," the production volumes, and the cash flow their industries needed to retool, reconvert, and recover. "We need a year or two to get our feet on the ground," an auto executive told Congress; import restraints would provide the industry with "breathing space in which to accomplish the very costly and time-consuming transition to an entirely new generation of automobiles that are responsive to consumer demand." Import restraints, said Douglas Fraser, president of the United Auto Workers, would "give the American automobile industry the time to convert and compete." Steel spokespeople echoed this rationale. Said the president of the United Steel Workers: "We need immediate [import] relief, so that the industry can undertake the task of modernization without having its domestic markets stolen during the process."

Predictably, the "breathing space" rationale turned out to be an elastic concept. Import restraints seemed peculiarly susceptible to regular renewal. Additional time was always needed to insure improved performance. In the process, temporary relief veered toward permanent protection.

Moreover, the "breathing space" period was seldom used for its avowed objectives. In steel (which has benefitted from import relief almost continuously since the late 1960s), the integrated producers diverted their cash flows and borrowing capacity from massive modernization to intra-industry mergers and conglomerate acquisitions--most dramatically exemplified by U.S. Steel's investment of $6.3 billion in Marathon Oil (1981) and $2.9 billion in Texas Oil & Gas (1986). Steel labor, during this period, did little to help the industry improve its international competitiveness. Indeed, the gap between hourly employment costs in steel and manufacturing as a whole widened from 25 percent in the mid-1960s to 60 percent in 1980. In autos, management used the breathing space period to extricate itself from the small-car field (which it virtually abandoned to foreign producers and joint ventures), and to diversify out of the automobile industry (with such acquisitions as Electronic Data Systems and Hughes Aircraft). At the same time, organized labor (like its brethren in steel) widened the gap in hourly employment costs between the auto industry and manufacturing as a whole from 20 percent in the mid-1960s to more than 60 percent in 1980. In both steel and automobiles, the government validated the unions' gains, and made possible industry's price increases to pay for them, by compliantly erecting a system of import protection. How well this served the public interest or promoted good economic performance is a question that hardly survives the asking.

The cost to the public of protectionist tripartite planning in autos and steel has been substantial. In autos, "voluntary" Japanese export restraints have inflated new-car prices possibly as much as $2,500 per car and, in the aggregate, cost American consumers an estimated $3.9 billion to $5.8 billion annually. In steel, import restraints have inflated prices in the U.S. market 12-30 percent, and have cost consumers (including American steel-buying producers) an estimated minimum of $1.1 billion to as much as $6.8 billion annually. And what has protectionist industry-labor-government planning accomplished? A handful of jobs saved at enormous expense: $240,000 per job saved in autos, and perhaps as much as $750,000 per job saved in steel[24]--an expense hardly conducive either to efficiency at home or competitiveness abroad.

3. Nationwide Tripartite Planning.[25] The N.I.R.A. of the 1930s was perhaps the most comprehensive peacetime attempt to institutionalize a system of management-labor-government cooperation in the United States. Its "codes of fair competition," drafted industry-by-industry, constituted government-

sponsored and government-enforced cartels enjoying a specific exemption from the antitrust laws.

N.I.R.A. legitimized a system of industrial self-regulation. Trade associations drafted the codes and, more often than not, trade association representatives were the government officials entrusted with enforcement of the codes. Consumers served on "advisory" committees, but their role was cosmetic and at best marginal. This was regulation carried out in the name of the state, but not necessarily in the interest of its citizens. It was the exercise of social control by private interests, but without social accountability or responsibility. In the words of the late Clair Wilcox, N.I.R.A. provided the "country with a demonstration of the character and the consequences of cartelization. It showed that industry, when given the power of 'self-government,' could not be trusted to exercise it in the public interest; that enterprise would be handicapped and vested interest protected, progress obstructed, and stagnation assured."[26] Neither, one might add, could industry be trusted with self-government when it exercised such power in symbiotic unison with organized labor.

Ultimately, before the Supreme Court terminated this catastrophic experiment with cartelization and tripartite planning, the N.I.R.A. revealed the difficulties of grafting a system of business-labor-government syndicalism onto a system of free market economics. The N.I.R.A. experience highlighted the dangers of permitting organized groups and vested interests to set the rules by which the economic game shall be played, and thus to usurp the functions of government itself.

III. Conclusion

A final observation: the miraculous performance of the Japanese economy since World War II has attracted extensive scrunity in recent years. A plethora of hypotheses has been propounded to explain the "miracle." Unfortunately, we believe, the most important lesson of the Japanese experience has been overlooked. The "miracle," we suggest, did not happen because Japan is populated by giant firms, nor because it is immune from stringent antitrust prohibitions, nor because it benefits from any allegedly symbiotic relationship between industry, labor and government.

Rather, we submit, the Japanese "miracle" is largely attributable to the fact that Japanese industries were compelled to compete their way into world

markets--markets in which they held no established position and which they could neither manipulate nor control. (After all, no one forced consumers to buy Japanese goods at gunpoint.) The Japanese succeeded in playing, and mastering, the competitive market game by offering better products, better produced, and at better prices. In this effort, Japanese industry typically has been aided by structurally competitive industries at home--a phonomenon that can be ascribed in important part to vigorous antitrust action taken during the post-war Allied occupation of Japan.[27]

Viewed in the light of empirical evidence, we conclude that if efficiency, innovation and world-class competitiveness are important American goals, then the time has come, not for a euthanasia of antitrust, but for its revitalization in order to combat what Richard G. Darman, the recently resigned Undersecretary of the Treasury, calls "corpocracy"--that is, "large-scale corporate America's tendency to be like the government bureaucracy that corporate executives love to malign: bloated, risk-averse, inefficient, and unimaginative."[28]

Notes

1. Adams and Brock, The Bigness Complex, New York: Pantheon Books, 1986.

2. Except where noted, the following is drawn from, and documented in, The Bigness Complex, chap. 3, and in Adams and Brock, "The 'New Learning' and the Euthanasia of Antitrust," 74 Cal. Law Rev. 1515 (1986).

3. "Managers Who Are No Longer Entrepreneurs," Business Week, June 30, 1980, at 74, 81.

4. Acquisitions and Joint Ventures Among Large Corporations: Hearings Before the Subcomm. on Monopolies and Commercial Law of the House Comm. on the Judiciary, 98th Cong., 1st and 2d Sess. 128-36 (1985).

5. In addition to The Bigness Complex, see the following: Dennis C. Mueller, "The Effects of Conglomerate Mergers: A Survey of the Empirical Evidence," Journal of Banking and Finance, vol. 1, pp. 315-347 (1977); Idem (ed.), The Determinants and Effects of Mergers: An International Comparison (Cambridge: Oelgeschlager, Gunn & Hain, 1980); Idem, "Mergers and Market Share," Review of Economics and Statistics, vol. 67, pp. 259-67 (1985); Stephen A. Rhoades, Power, Empire Building, and Mergers (Lexington, Mass.: Lexington Books, 1983), especially pp. 89-118; F.M. Scherer, Industrial Market Structure and Economic Performance, 2nd ed. (Chicago: Rand McNally, 1980), p. 141ff; Idem, testimony before the House Subcommittee on Telecommunications, Consumer Protection, and Finance, March 12, 1985; David J. Ravenscraft and F.M. Scherer, "The Profitability of Mergers," Working Paper No. 136, Federal Trade Commission (January 1986); Idem, "Mergers and Managerial Performance," Working Paper No. 137, Federal Trade Commission (January 1986); Edward S. Herman and Louis Lowenstein, "The Efficiency Effects of Hostile Takeovers: An Empirical Study," Working Paper No. 20, Center for Law and Economic Studies, Columbia University School of Law (January 1986); Mark W. Frankena and Paul A. Pautler, Antitrust Policy for Declining Industries, Bureau of Economics, Federal Trade Commission (October 1985); R. Hal Mason and Maurice B. Goudzwaard, "Performance of Conglomerate Firms: A Portfolio Approach,"

Journal of Finance, vol. 31, pp. 39-48 (1976); Terence C. Langetieg, Robert A. Haugen, and Dean W. Wichern, "Merger and Stockholder Risk," Journal of Financial and Quantitative Analysis, vol. 15, pp. 689-717 (1980); John Blair, Economic Concentration (New York: Harcourt Brace, 1972), pp. 185-95; Samuel R. Reid, The New Industrial Order (New York: McGraw-Hill, 1976), especially pp. 101-119; Geoffrey Meeks, Disappointing Marriage: A Study of the Gains From Merger (Cambridge: Cambridge University Press, 1977); S.N. Laiken, "Financial Performance of Merging Firms in a Virtually Unconstrained Environment," Antitrust Bulletin, vol. 18, pp. 827-51 (1973); "Do Mergers Really Work?" Business Week, June 3, 1985, pp. 88-100; "Splitting Up: The Other Side of Merger Mania," Business Week, July 1, 1985, pp. 50-63; "The Decade's Worst Mergers," Fortune, April 30, 1984, pp. 262-70; "The Bottom Line on Ten Big Mergers," Fortune, May 3, 1982, pp. 84-89; "Exxon's $600-Million Mistake," Fortune, October 19, 1981, pp. 68-88; "The De-Geneening of ITT," Fortune, January 11, 1982, pp. 34-39; Lydia Chavez, "The Acquisitions That Haven't Paid Off," New York Times, March 28, 1982, sec. 3, pp. 1, 24; William D. Nordhaus, "The Vanity of the Takeover Game," New York Times, October 3, 1982, sec. 3, p. 3; "Smaller Can Be Prettier." Forbes, June 17, 1985, pp. 206-208.

6. S. Livermore, "The Success of Industrial Mergers," 50 Quart. J. Econ. 68, 87-88 (1935).

7. K. Cowling et. al., Mergers and Economic Performance 370, 371 (1980).

8. See D. Mueller (ed.), The Determinants and Effects of Mergers: An International Comparison (1980); and A. Jaquemin (ed.) European Industries: Public Policy and Corporate Strategy, especially pp. 168, 347, 349, 357 (1984). After encouraging merger-induced giantism to meet "the American challenge" in the 1960s, for example, European governments today are tearing down and selling off the bloated, inefficient, and uncompetitive giants they had so assiduously built up over the preceding two decades. Indeed, in a profound reorientation, European governments are now actively promoting small business as a matter of national policy. (See S. Solomon, Small Business U.S.A. 268, 273 (1986).)

9. "Small Is Beautiful Now In Manufacturing," Business Week, Oct. 22, 1984, at 152.

10. Except where noted, the following is drawn from, and documentation is provided in, Adams and Brock, The Bigness Complex, chap. 4.

11. L. Cohen, "Failed Marriages," Wall St. J., Sept. 10, 1984, at 1.

12. Wayne, "Joys of Fleeing the Corporate Stable," N.Y. Times, Nov. 15, 1981, sec. 3.

13. "At GM, We're Building the Factory of the Future," Detroit Free Press, Mar. 19, 1985, at 9A.

14. "Big Business Tries to Imitate the Entrepreneurial Spirit," Business Week, Apr. 18, 1983, at 84. See also R. Kirkland, "Europe's New Entrepreneurs," Fortune, Apr. 27, 1987, at 260.

15. See Federal Trade Comm'n, The Merger Movement: A Summary Report, 70-134 (1948), and Steel--Acquisition, Mergers and Expansion of 12 Major Companies, 1900 to 1950: Hearings Before the House Select Comm. on Small Business, 81st Cong., 2d Sess. (1950).

The United States Steel Corporation was created in 1901 as the "combination of combinations"--the nation's first billion dollar corporation. It was the product of a simultaneous consolidation of the Carnegie Co., Federal Steel Co., National Tube Co., American Steel & Wire Co., National Steel Co., American Steel Hoop Co., American Sheet Steel Metal Co., American Tin Plate Co., American Bridge Co., Lake Superior Consolidated Iron Mines, and the Shelby Steel Tube Co. But these constituent companies had themselves also grown through merger and acquisition. Thus, all told, the U.S. Steel Corporation in its genesis represented the cumulative consolidation of 170 formerly independent steel companies.

Bethlehem Steel was incorporated in 1904 as a combination of ten producers: Bethlehem Steel Co., United States Shipbuilding Co., Harlan & Hollingsworth Corp., Union Iron Works Co., Samuel L. Moore & Sons Corp.

Cartaret Improvement Co., Eastern Shipbuilding Corp., Crescent Ship Yard Corp., Bath Iron Works Co., and Hyde Windlass Co. Bethlehem subsequently acquired 33 other companies over the years 1916-1945, including Pennsylvania Steel Co., American Iron & Steel Manufacturing Co., Lackawanna Iron & Steel Co., Cornwall Iron Co., Midvale Steel and Ordnance Co., Cambria Steel Co., Pacific Coast Steel Co., Southern California Iron & Steel Co., Danville Structural Steel Co., Hay Foundry & Machine Co., Kalman Steel Corp., Seneca Iron & Steel Co., Atlas Steel Barrel Corp., and Buffalo Tank Corp.

Republic Steel was incorporated in 1930 as a consolidation of Republic Iron & Steel Co., Central Alloy Steel Corp., Donner Steel Co., Inc., and the Bourne-Fuller Co. Republic subsequently acquired the Corrigan-McKinney Steel Co., Truscon Steel Co., Canton Tin Plate Corp., Niles Steel Products Co., Gulf States Steel Co., and the Stevens Metal Products Co.

Jones & Laughlin Steel was originally incorporated in 1902, and subsequently acquired Frick-Reid Supply Corp., Roehn and Davison, Lukens Steel Co., Louisiana Erecting Co., Inc., National Bridge Works, McKeesport Tin Plate Corp., Otis Steel Co., Wachman Welded Ware Co., and the Electricweld Tube Division of Talon, Inc., among others.

16. Study of Monopoly Power: Hearings Before the Subcomm. on the Study of Monopoly Power of the House Comm. on the Judiciary, 81st Cong., 2d Sess. 967 (1950).

17. "The Toughest Job in Business," Business Week, Feb. 25, 1985, at 50-51.

18. U.S. Int'l Trade Comm'n, Carbon and Certain Alloy Steel Products, vol. 1 (Washington, D.C.: July 1984), 97, 110.

19. See W. Adams and H. Mueller, "The Steel Industry," in W. Adams (ed.), The Structure of American Industry (7th ed. 1986); D. Barnett and L. Schorsch, Steel: Upheaval in a Basic Industry (1983); D. Barnett and R. Crandall, Up From the Ashes: The Rise of the Steel Minimill in the United States (1986).

20. F. Scherer, Industrial Market Structure and Economic Performance 546 (2nd ed. 1980).

21. This section is documented in The Bigness Complex, chapters 16, 17 and 18.

22. This section is documented in The Bigness Complex, chapters 20 and 23.

23. Here again, the U.S. experience is not unique. In discussing the European steel cartel created under the Davignon Plan, for example, the Economist observes:

> The cartel was created seven years ago, together with promises that it would end the subsidy race among national governments. The arithmetic of what followed may sound wasteful and ruthless: $40 billion of new money spent on restructuring; annual capacity down by 31m tonnes, to 140m; 250,000 steel jobs gone. But the EEC still has 20m tonnes of excess annual capacity, and many steel companies are slipping back into loss. They say that only production quotas can prevent what they call a damaging free-for-all. European taxpayers and consumers should reply that an unsubsidised free-for-all is exactly what is required, to prevent Europe ending up with an entrenched common steel policy to rival the common agricultural farce. . . .
>
> Cutting back the cartel is only the first step. Steel subsidies are now illegal; let them remain so. The existing cartel framework lapses this year; let it go. Other European heavy industries have been exposed to market forces, and benefited from it. Europe's chemical companies, for instance, have had to move upmarket into specialty chemicals and pharmaceuticals where their future belongs. By delaying such an

> adjustment in steel, Europe has handicapped its car, electric, construction and other big steel-using industries. The chain of steel protection is long and expensive. Better to break it now.

(The Economist, March 21, 1987, at 17.)

For the Japanese experience with "crisis cartels," see R. Z. Lawrence and R. E. Litan, Saving Free Trade at 94-96, as well as their more general discussion of the problem at 84-96.

24. See Hufbauer, Berliner and Elliott, Trade Protection in the United States: 31 Case Studies (1986).

25. This section is documented in The Bigness Complex, at 359-363.

26. C. Wilcox, Public Policies Toward Business, at 680 (1971).

27. See, K. Ohmae, "Japan vs Japan: Only the Strong Survive," Wall Street Journal, Jan. 26, 1981 at 20. Says the Economist: "The once successful sort of government intervention in industry since the war has been trustbusting by mistake. The foundations for Japanese and German miracles were laid by the victorious allies' 'punitive' action in splitting the old zaibatsus into more and originally smaller groups; they thought they were limiting German industrial power for the future, but were instead increasing it, when they broke up I.G. Farben into three smaller and therefore more efficient firms." ("Big Won't Work," The Economist, Dec. 25, 1976, at 60-61.)

28. "Looking Inward, Looking Outward: Beyond Tax Populism," Remarks by Richard G. Darman before the Japan Society's Conference on Tax Reform in Japan and the United States, New York City, Nov. 7, 1986.

Mr. ADAMS. Professor Brock incidentally cannot be here today. His students would much prefer to have him here because he is administering final examinations in Oxford, Ohio.

We have addressed two central questions posed by the committee, whether relaxed antitrust standards with respect to mergers and acquisitions are likely to promote good economic performance by distressed industries, and, secondly, whether cartelization and industry-labor-government planning are viable policies for rescuing import-impacted American industries.

Mr. Chairman, respectfully we submit that it is important that we examine the evidence in a clinical, objective and dispassionate manner, because if we are to fashion an effective prescription for curing the current malaise, we must first make the correct diagnosis. We must distinguish between symptom and disease. We must be honest with ourselves and in formulating sound public policy we cannot afford the luxury of substituting rhetoric for reality.

In our recently published book, "The Bigness Complex," we present extensive documentation to show that neither mergers nor corporate bigness promote good economic performance. To the contrary, we find that, more often than not, mergers and corporate gigantism undermine efficiency in production and technological innovation. These findings apply to American industry generally and to such import-impacted industries as steel and automobiles specifically.

Emasculation, evisceration, euthanasia of antitrust laws is not going to cure that problem. That is the bottom line of our testimony.

With respect to American industry generally, I think it is interesting to note that it is not only academic studies which have recently presented a great deal of evidence to show that merger-induced size is neither the prerequisite nor the guarantor of efficiency. Perhaps even more impressive are the articles which have appeared in influential business publications which have called repeated attention to the malaise of the bigness complex. In recent cover stories, for example, Business Week has argued that small is beautiful. In response to the question do mergers really work, the answer was not very often, which raises questions about merger mania. And in noting the trend toward splitting up, spinning off divisions, even liquidating themselves, Business Week has reported that large corporations are increasingly resorting to those tactics.

Forbes Magazine has provided some case studies to document what would seem to be an obvious fact, namely, that soap and pastrami do not mix.

The Economist of London has featured articles entitled, "Big Won't Work," "Big Goes Bust," et cetera, et cetera. I think with respect to innovation, the inovativeness of bigness, the empirical evidence also suggests that merger mania and corporate bigness retard, rather than advance technical innovation. We spell that out in our prepared statement and, incidentally, the evidence applies not only to the current situation in the United States but also in the past. It applies not only to the United States but to the experience of other countries as well.

Now, with respect to import-impacted industries and specifically steel, I think it is important to note that these general findings we

have outlined are especially valid in the case of the American steel industry. In fact, if merger induced giantism was really conducive to competition, then the big American steel companies should be the efficiency and innovation marvels of the world. Clearly, they are not.

First, to an almost singular degree, bigness in steel is the product of decades of combinations and consolidations, beginning at the turn of the century and continuing uninterrupted down to the present day. U.S. Steel Corporation, now USX, for example, at its inception in 1901 came into being literally overnight through a massive amalgamation of nearly 180 formerly independent plants and controlled at the outset upward of 70 percent of the American market. Bethlehem was incorporated in 1904 as a combination of ten producers. Between 1914 and 1945, it acquired 33 other steel firms. Republic and Jones & Laughlin are companies which exhibit a similar geneology.

Second, merger-induced giantism has scarcely promoted operating efficiency in steel. Over 50 years ago, a management consulting firm retained by U.S. Steel Corporation reported that the Nation's largest steelmaker was a big, sprawling, inert giant whose production operations were improperly coordinated, suffering from a lack of a long-run planning agency, relying on antiquated systems of cost accounting, et cetera, et cetera, et cetera.

Today, more than half a century later, U.S. Steel is described by Business Week as one of corporate America's most hierarchical, bureaucratic managements, an inbred, centralized, autocratic bureaucracy that stifles change.

The CHAIRMAN. I thought we had some things written about us.

Mr. ADAMS. That covers it pretty well, does it not.

The CHAIRMAN. It may not be right, but it sure is a hell of an indictment.

Mr. ADAMS. Third, big steel has been devastated by far more efficient foreign producers. Even more significant, however, is that it has also been out-performed at home by vastly smaller, non-integrated, super-efficient American minimills in the production of wire rods, bars, light structurals, et cetera.

International Trade Commissioner Paula Stern has found it obvious "why the integrated producers lost so much of the market to the minimills. The latter are modern and efficient mills dedicated to the production of one or two products. The efficiency of their technology, management and cost control techniques allows many mini mills to keep their prices low."

For this important reason, the efficient minimills are able to under-sell foreign producers in the United States product markets in which they compete. That is, little steel has prevailed in the market through efficiency, not only against the domestic giants but against such awesome rivals as Japan, Incorporated.

Elephantine size has retarded technical innovation in steel. The U.S. steel oligopoly has lagged, not led, in an adopting major technological breakthroughs and innovations. Mr. Barnette has told us a great deal about the progress that has been made with respect to continuous casting. Let me tell you that in 1985, when Japanese producers were continuously casting approximately 90 percent of

their steel, the American rate was about 40 percent, and half of that, incidentally, was accounted for by the mini mills.

As Mr. Crandall has pointed out, the one major antitrust action taken with respect to the steel industry was the action to block the Bethlehem-Youngstown merger in the 1950's, and that produced the most modern, newest integrated steel facility that we now have in the United States. In other words, the outcome of the antitrust action was positive.

Nowhere can you show that antitrust has interfered with mergers or the attainment of size through mergers in the steel industry. I think, in sum, the evidence in steel shows that mega-mergers are not the path to competitive economic performance, nor are giant, bloated "corpocracies" the solution. Merging losers will not produce world class winners. Mating ugly ducklings is not going to produce a swan.

The accumulation of eight decades of economic evidence suggests that the opposite is true. The recent collapse into bankruptcy of the giant LTV-Republic Steel combine only two years after its creation underscores that point.

Now, with respect to the second major question, that is, labor-management-industry cooperation——

The CHAIRMAN. Professor Adams, let me make a suggestion or request. Your testimony is extremely valuable. We have gone about 15 or 17 minutes already, as I understand it. I want to hear what you have to say. Two of our witnesses have to leave after we break. If you only have a few more minutes, go ahead, because I would like to hear all you have to say. Possibly what we could do is stop the testimony now and go immediately to the questioning of the two people who are not able to come back this afternoon, and then resume at 1:30 with the remainder of your testimony, if that is appropriate. I do not want to hurry you. I want to hear all you have to say.

Mr. ADAMS. I much prefer to come back this afternoon, Mr. Chairman, if that is agreeable.

The CHAIRMAN. I am anxious to do that, to hear the rest of the testimony.

As I understand it, two of our witnesses, both President Williams—which has a nice ring to it, Mr. President—and Mr. Crandall, cannot come back this afternoon, nor can my colleague from Pennsylvania who has an incredibly strong interest in this area and who has spent a good deal of time on it.

I will ask just one or two brief questions and then yield to my colleague. My worry is that we are going to get caught by a vote in the Senate, and, as you well know, we all have to leave and go vote.

Let me make a prefatory comment to my question. The instinct that I have is that I agree with the thrust of what you all basically have said. Antitrust policy is not going to make or break what is, depending on your view, the remainder of the steel industry or the nature of the steel industry in any significant way. The tendency is to move—or my instinct is to move to talk about the effects of the restructuring that is going to take place. Whether or not the Congress takes any action, there is restructuring going on right now.

I am inclined, Mr. Williams, to go into some detail about proposals expanding on the non-antitrust aspects of your testimony, but I am going to refrain for the purpose of this hearing is parochial and narrow. But it is our responsibility to speak to the antitrust provisions.

Let me ask the following question: The first question I would like to ask Mr. Williams—and I will submit several questions to you in writing, if I may, for you to answer, and the record will be kept open if you are willing to respond to them.

In my opening statement, I raised questions about the possible anti-competitive effects of allowing import-damaged industries—and you make the case that your industry is one—the possible anti-competitive effects of allowing import-damaged industries to get together and plan an adjustment strategy to be submitted to the International Trade Commission for temporary trade relief. I would like to know from you how serious you believe this concern regarding anticompetitive effect is, if we allow that course to follow.

Do you follow the questions?

Mr. WILLIAMS. Yes. I do not think the concern is serious because I think the overall situation in the steel industry is so competitive that anything that can be done in a rational way that enables the integrated industry to come up, in cooperation with other major players, with a viable strategy that supports and helps that industry certainly has to involve the industry doing competitive things. When you talk about a strategy to survive and exist in this kind of an economy, what are you talking about? You are talking about ways in which you can modernize, which the union has always put great emphasis on, the conditionality of any kind of trade relief, for example. We have always talked in terms of a more modern industry, more competitive industry. We think the result of that kind of activity is not less competitive industry, but it would be a more competitive industry.

The CHAIRMAN. What about the notion of tariffs versus quotas?

Mr. WILLIAMS. Well, of course, our experience, and it is our view of experience in the steel industry that quotas are the only effective way in which to deal with import penetration and import flows. The problem with tariffs is when you are dealing with subsidized products from other countries and all the rest, driven by other concerns other than competitiveness, is they simply are prepared to override the tariffs and absorb those costs as they absorb other costs in subsidizing their industries.

Would you object if I were to say a word about the minimills, in view of the time.

The CHAIRMAN. Not at all.

Mr. WILLIAMS. We have nothing against minimills. We in the Steelworkers represent workers in a great many of the minimills and about half the industry in terms of the number of plants and in terms of its capacity. But both Mr. Crandall and Mr. Adams, it seems to me, have sort of a euphoria about the minimills. Here is the answer to the problem of the steel industry in the United States.

I think it should be made clear that the minimills deal with really just the fringe of the market. They are now talking about moving into making real steel, higher value added things, but they

survived in terms of making very simple products, very simple shapes and so on and serve relatively limited markets. It is true they have been able to be moderately competitive in that regard, but it is not true that they have not had an enormous assistance from time to time in terms of being competitive. A number of them have gone out of business. To describe that as a success story and not affected by these other concerns is I think really, as we see it at least, to distort reality. They suffered a great many of these problems, and the more they move up into the higher value added end of the market, the more they attempt, which they do not do now, the more they attempt to make high-quality sheet steel and compete, for example, in the automobile sector and, really more important, the appliance sector, which is really an important part of the steel market in the sense in terms of quality of the steel and the volume involved and so on, the more they move into that the more they then are being impacted by or will become impacted by exactly the same concerns that have affected the integrated industry.

So I think the idea that somehow everything good flows down the minimill street and the others somehow are all mixed up and failing is really quite a distorted picture.

The CHAIRMAN. I will ask this one last question and then yield to Senator Specter. How do you respond to that, Mr. Crandall?

Mr. WILLIAMS. Briefly.

Mr. CRANDALL. The fact of the matter is Mr. Williams' description of the minimill industry would have been accurate 10 years ago, but in the last 10 years it has changed dramatically. Over the last 10 years the minimills have taken away far more tons of shipments from the integrated companies that imports have. The increases in the minimill shipments have been far more dramatic than the increase in foreign imports.

The CHAIRMAN. What is the percentage of steel produced by the minimills?

Mr. CRANDALL. Around 20 percent and growing. Things move slowly in this industry. I suspect it will be 35 to 40 percent by the end of the century. This is not like semiconductors. The facilities retire slowly. New facilities are built slowly, but minimills are indeed expanding and they already have gone into the larger structural shapes. They are already in cold finished bars. They are into drawing quality wire rod. The big movement that Mr. Williams referred to is the movement to sheet steel. There is no doubt they will produce sheet steel. The question is whether they can produce high-quality sheet steel, which accounts for roughly 15 to 20 percent of total shipments of steel in the United States.

So I think they will increasingly take market share away from the large companies. In fact, as I mentioned, there are large foreign companies looking to invest in minimills in the United States today. The fact that a few minimills have encountered bankruptcy should not be a matter of concern. Retail stores turn over every day. No one thinks the retail industry is sick. This is a competitive industry. Mistakes are made, but the large successful ones like Nucor and North Star and Chapparal are doing very well.

The CHAIRMAN. I will yield not only the questioning but the dias to the Senator from Pennsylvania.

I must go to the floor. We will reconvene—what is a convenient time for you three gentlemen who are kind enough to come back. Would you rather come back at 1:45 or 2:00? It is up to you. I want to give you time to have lunch. We will probably be here until 20 after 12.

Mr. BARNETTE. At the convenience of the committee.

The Chairman. Why do we not come back at 1:45. That will give you a chance to escape from the Hill and get something other than the food here. We will reconvene at 1:45 and we will continue as long as the Senator from Pennsylvania would like. I thank the two gentlemen who have to leave for their time.

Senator SPECTER [presiding]. I first commend you for convening these important hearings with special concern on the steel industry.

I was interested, Mr. Barnette, in your statement that we should not be increasing or the United States should not be participating in increasing overseas capacity. I agree with that. Are we doing that? Do you know of any activities by the United States, either through the International Monetary Fund or the World Bank or otherwise to increase steel capacity overseas?

Mr. BARNETTE. We are trying to watch that very carefully, Senator, and at the present time in terms of international banking and expansion activities, I am not aware of specific projects I can point to, but it is always present in our international relations and activities and should be monitored very closely. It is not accurate with respect to recent years, and it just would be totally in consistent in our international financing activities to be doing anything to encourage that kind of production and expansion.

Senator SPECTER. This is a subject which has been very closely scrutinized by many of us with Secretary Jim Baker and Don Regan before him. There was a time not too long ago when Brazil was subsidizing imported steel and at the time when the International Monetary Fund was making very substantial contributions there, and that was an issue of concern.

Does anybody else know of any efforts by the U.S. Government, either directly or indirectly, through the IMF or the World Bank to be supported the expansion of steel production, support of the steel industries overseas?

Mr. CRANDALL. There have been World Bank projects over the years, some of which—I am not up to date—but some of which continue in countries like Egypt, Turkey, and Nigeria. Most of these are unmitigated disasters and are hardly a long-run threat to the competitive vigor of the U.S. steel industry.

Keep in mind that the serious expansion of capacity around the world is probably going to take place in the newly industrialized countries in the Orient, and they do not require capital from American banks or the American Government in order to expand. The Koreans are expanding right now. The Taiwanese will expand. They do not need the capital from a low-savings society such as ours in order to do that. They have their own other sources of capital.

Senator SPECTER. Mr. Williams?

Mr. WILLIAMS. There is a longer indirect activity, Senator. Whenever an American based multinational moves a production facility

offshore some place to make something out of metal, and most things use some metal, why, they are not going to use by and large domestic steel for those kinds of products. So that trend, the de-industrialization of America continues.

Senator SPECTER. Well, it is a little hard for us to affect that unless you have some suggestion on it. If we are putting up money for the World Bank or the International Monetary Fund, then I think Congress has a more direct role to stop it or put limitations on it or at least have it be a major factor in our thinking. Do you have any suggestions for any action Congress might take?

Mr. WILLIAMS. I do not think it is the subject of this particular forum this morning, but certainly the labor movement has made many suggestions over the years of approaches to tax credits and all the rest and breaks which multinational corporations get on overseas investments and so on as being an approach to the problem.

Senator SPECTER. Mr. Williams, one question of a different subject, but let me pursue it with you at this moment. If the Gephardt amendment were enacted, got through the hurdles legislatively and through executive action, were part of the law, of the trade law of this country, what effect do you think that would have on the steel industry?

Mr. WILLIAMS. I think it would help, obviously, in both ways that we have been considering here. To the extent that it deals with massive imbalances in trade and to the extent that those are the result of unfair trading practices, to the extent it requires then some reduction from the countries involved, why, there would be some impact. My own view would be that the impact would be much more in the indirect side of things than in the direct side, but the end result—the end result—the greater impact in terms of consumer goods of one kind or another that involves steel in their production. But to the extent that the production of such goods is brought home and is done domestically, instead of in terms of seeking a more balanced trade arrangement in the world, instead of such goods being produced in other countries, it supports domestic industry.

Senator SPECTER. Let me ask you one final question for a yes or no answer, since I have commitments that require my leaving now, really a few moments ago. I would like each of you to indicate yes or no, whether you favor the Gephardt amendment.

Mr. Crandall?

Mr. CRANDALL. I strongly oppose it.

Senator SPECTER. Mr. Williams?

Mr. WILLIAMS. I strongly favor it.

Senator SPECTER. Mr. Barnette?

Mr. BARNETTE. Yes, and I would add to that, Senator, that the United States is the only major steel producing nation in the free world who is a net importer of steel, some 23 million net tons come into this country, as matched against other countries, Japan and others. The concept of Gephardt, yes, we very much support it.

Senator SPECTER. Support it?

Mr. BARNETTE. Yes, sir.

Senator SPECTER. Mr. Sims?

Mr. SIMS. Opposed.

Senator SPECTER. Mr. Adams?

Mr. ADAMS. I oppose it.

Senator SPECTER. Thank you very much, gentlemen, for coming. I am sorry I have to leave now.

I thank you especially, Mr. Barnette, for your support of S. 1004, and also you, Mr. Williams, you have supported the legislation or the Steelworkers have in the past. We are going to be pushing hard on that specific issue when the trade bill comes up.

We will adjourn the hearing until 1:45, and Senator Biden will be back.

Thank you very much.

[Whereupon, at 12:12 p.m., the committee was in recess, to reconvene at 1:45 p.m., the same day.]

The CHAIRMAN. Thank you very much, gentlemen, for your patience as we were trying to clear the objection to us continuing to meet. It has been cleared. Now, we have no court reporter, but we are going to go ahead anyway and tape the hearing for the record.

Let me, if I may, ask you, Mr. Adams, to finish your comments on the last part of the agreement and again, as brief as you can be in keeping with the substance would be appreciated.

Mr. ADAMS. Thank you, Mr. Chairman.

The comments are on this trade/labor/government cooperation with an antitrust exemption. I think history teaches us that experiments with that type of tripartite planning has probably been one of the less felicitous experiments in the American economic state craft. We have experimented with it as we point out in the prepared statement in the regulated industries and if you take the cooperation between the regulatory commissions on the one hand and labor and the industry—the regulated industry—on the other, the result was that these industries became Federal protectorates living in the cozy world of cost plus safely protected from the ugly specters of competition, efficiency and innovation. The Congress finally, in 1978, as you know, deregulated airlines and in 1980 largely deregulated trucking.

In the import impacted industries such as steel, industry/labor/government cooperation has been implemented by a scheme of protectionism and international cartelization and if you take steel in particular, the steel industry, the U.S. steel industry has had protection at least from January 1, 1969, down to the present with very brief intervals of free trade.

This experiment has not proved successful. These import restraints were actively supported by industry, by labor in steel, and of course, implemented by the government. But like hard drugs, I think import restraints are addictive; temporary protection always ends up as permanent protection; it does not improve the industry's efficiency; indeed, once an industry gets on the fix of trade protectionism, it becomes dependent on it and demands that it be perpetuated.

Of course the third example with comprehensive labor/industry/government cooperation was the example of the NIRA of the 1930's which was a hopeless disaster and had it not been for the Supreme Court in 1935 to put an end to that experiment, Lord knows where we would be today.

So, again, if experience is our guide, that kind of planning, and I note that the word industrial policy is no longer used with reference to this kind of experiment, I think past experience indicates that it is not something worthy of repetition.

The CHAIRMAN. Thank you. I have a series of questions but before I begin, let me ask a broad question. This is not directly the topic of our inquiry today. I am asking this to you, Professor.

It seems to me that what I detect, not only in the steel industry but in other industries, among both management and labor, is a fear and a frustration. Every time we talk about free trade with them—I was interested by Mr. Williams' testimony this morning where he spent most of his time, as I recall the testimony, focusing on what happens to workers during this period of transition.

For my own gratification, have you written on and/or spoken to this issue? Assuming everything you say is correct, we still are going to leave some people on that industrial scrapheap, because they were born too soon to this technological revolution. Have you written or spoken to that, the human dimension of this, what we do in the near term, short term, for people who obviously, even if there is a full transition to a different type of—if the integrated industry is dead and never to return but you are going to find the mini-mills have the same capacity—what happens to the people who are displaced in the process?

And I am not being smart. I am genuinely interested because it seems that if we could somehow figure out an answer to that, I, at least for one, would be moved by the soundness of your argument that this would solve my near-term problem as a policymaker. Have you written about that at all?

Mr. ADAMS. Well, Senator, there are various estimates that have been made. The protectionist policy that we have followed in steel and automobiles has not been costless. A handful of jobs have been saved by the trade restraints and they have been estimated to amount to $240,000 per job saved in automobiles and perhaps $750,000 per job saved in steel.

There is no question about it as you rightly point out, Senator, that worker displacement is a human tragedy for individuals and for their families and for the communities in which they live. It is a tragedy of substantial proportion.

The real question, however, is whether trade protection is the kind of public policy that can be more than a palliative, that can be a panacea, a long-term solution for the problem we have identified.

At the opening of the statement, we suggest that it is very important that we be honest with ourselves and distinguish between symptom and disease because if our diagnosis of the problem is wrong, the public policies that we are likely to embrace will be ill-guided, non-productive, or, at worst, counter-productive.

Mr. SIMS. Mr. Chairman, if I could make just one comment. I think this illustrates the terrible dilemma that policymakers have in trying to deal with antitrust issues in these kinds of areas. True antitrust is relatively heartless; it not only considers and assumes, but encourages, change and transition. Change and transition can have significant impacts on individuals, communities, States and companies, terrifically debilitating effects. That is the main reason

why antitrust has been more faithful to its rhetoric over the years than it has in its actions because these short-term dislocations and short-term injuries have created great pressures for antitrust policies. That is not a problem that can be done away with. It is an inevitable result.

The CHAIRMAN. I want to make it clear that my question did not relate specifically to the subject matter before us as it relates to any change in antitrust policy. I was just curious because I was impressed, and have been impressed, with your analysis, professor, and a synopsis of your work. I have not read your most recent book, but I am familiar with it.

I just wondered whether you had looked at the—let me ask a couple of questions if I may to all—sorry—Mr. Barnette.

Mr. BARNETTE. I would only wish to comment, Senator, and be sure that when this word protectionism is used, that it is used in a proper context and applied properly to this industry. For doctrinaire academicians and economists to impugn the protection of United States laws as applied to an industry as basic as steel, is ill-served and ill-placed.

The record of this industry with respect to seeking and achieving the protection of the United States trade laws is paramount and it is of long standing, and the policies that have been generated from both Democratic and Republican administrations and put in place, whether it is the VRA program, the Trigger Price program or the current President's steel program, have their basis on solid success in trade litigation under our trade laws.

To call that protectionism may be appropriate by one person's standard, but to call it or suggest that the remedies derived from it are improper, I think is quite out of place. I would and could now review or would place on the record, if it would be helpful, but I am sure that the Senator well-knows the long record of success in steel trade litigation that is so often characterized as protectionism.

The CHAIRMAN. Why don't you speak to that a little bit.

Mr. BARNETTE. From the 1950's through the 1980's, the industry filed over 300 dumping cases. In the mid-1970's, President Carter criticized the Treasury Department for being derelict in its enforcement of the United States trade laws.

In the Summer of 1980, the General Accounting Office issued a report dealing with the trigger price mechanism. Under great political pressure from the European leaders in this time frame, government officials urged the steel industry to withdraw pending successful cases dealing with and causing a movement toward TPM.

In response to the trigger price mechanism, the government itself self-initiated antidumping cases and there followed again investigations and substantial anti-dumping margins.

The CHAIRMAN. We all use the phrase dumping. For the record, define what constitutes dumping, in your opinion.

Mr. BARNETTE. In the steel cases, I would suggest that it is both, both dumping and subsidies, but in the dumping context, it is placing goods in our market at less than the cost to produce, and in the subsidy context, a much more complex definition.

The CHAIRMAN. Just on the dumping, Professor, if it is established that another nation is doing that, what is the appropriate response?

Mr. ADAMS. We have the Anti-Dumping Act of 1921 which has been periodically amended in order to help domestic industry succeed in the cases brought before the U.S. Tariff Commission in the old days, and the International Trade Commission today.

Many of the cases filed by the steel industry in collaboration with the steel union, have failed to establish successfully that indeed dumping has taken place.

The CHAIRMAN. Excuse me. I am trying to get at what the proper—let us just view it from a purely economic standpoint. If the Nation is in fact producing steel or any other product—widgets—at $1 a widget, selling them in their market for $1.10 a widget, protecting their market and then selling them in our market for $.90 a widget, what is an appropriate response, if any, to that? Is that just the free marketplace? Is it free trade? Is it protectionism to respond to any of those conditions, assuming they are established? I am not being smart, I am really trying to get a sense of what constitutes protection in your mind.

Mr. ADAMS. Senator, my answer would be that dumping is a form of predatory competition. If indeed you can establish that predatory competition has taken place, whether in domestic commerce or international commerce, then a policy directed to the preservation of competition should crackdown on that kind of predation.

The CHAIRMAN. I happen to agree with you. That is helpful. I mean, this probably seems awfully, awfully basic a question for me to be asking you gentlemen, but believe it or not, in the corridors of this Chamber, there are debates where we sort of go from mantra to mantra, led by the press here in Washington, all of us responding.

In this season the mantra that we chart is competitiveness. Last season it was drug abuse. The season before that it was industrial policy. So one of the things that is the hardest to establish is what is protectionism to one person may not be protectionism to another. I happen to agree with your definition as you have stated it.

Now, the debate rages and I realize that we are primarily folks here who have great knowledge of and interest in the steel industry, but this is not merely a hearing about the steel industry.

Let me ask you. Someone suggested that implementation of a relaxed antitrust standard for reviewing mergers involving firms and industries such as steel, that have been battered by imports, that that is a good idea. Would each of you, as briefly as you can, indicate how such a policy would specifically help any of these industries, if it would specifically help any of the industries. In this case for you, Mr. Barnette, steel is obviously the industry you know best.

Mr. BARNETTE. I think that in our wonderful economic system, Senator Biden, the market will decide the winners and losers, the survivors and those who do not. So what I say is within the context of a free market system. Because of that, when we look at steel and the steel industry and steel combinations, and I guess that there has not been much discussion about the customers—the all-important customers of these products and the markets in which they serve—anything that is done to restructure and to combine, to

merge, to joint venture, must be driven toward that commercial objective.

Having said that, in the case of steel specifically, I think the controlling policies that would enhance those business transactions will focus on today's business environment, on trade and on restructuring. And restructuring I am using in the broadest sense to accomplish the trade objectives to let the merger, the joint venture, the restructuring, take place. To let the restructuring part of that take place must of course be done within the framework of the antitrust laws, but, indeed, there may well now be sufficient understanding and policy flexibility to cause and permit those things to happen.

In my testimony, and in testimony of other witnesses today, I believe that has been suggested. The impediments to that policy being executed and discharged are more in the other two areas, those of trade and restructuring.

Mr. SIMS. I think, Senator, the assumption that underlies the question is that it is at least theoretically possible that some mergers or joint ventures that might take place in industries like steel, would create sufficient efficiencies so that they would help the steel industry to become more competitive.

The CHAIRMAN. I assume that is the rationale for the relaxation.

Mr. SIMS. Yes. If there is a merger or joint venture which would create such efficiencies, that would not pass muster under the antitrust laws today, then obviously relaxing the antitrust laws could permit that merger to take place and could help the industry.

I guess I would be inclined to believe, as my testimony indicates, that in that situation, the transaction is likely to have an additional impact and that impact is that it is going to have a significant anticompetitive effect as well as some adverse effect on customers of the companies involved. If it did not have that effect, it would pass muster under the antitrust laws as they are interpreted today.

So if you have a transaction which creates efficiencies, but also creates a serious potential of anticompetitive effect, you then have this terribly difficult trade-off between preserving the operations of the company for the benefit of the shareholders and the employees and, at the same time, taxing the customers of that company and the other companies in the industry. That is a very difficult trade-off to make in any particular case and a very difficult trade-off to make as a general proposition.

Mr. ADAMS. If you examine the history of mergers in the steel industry, they certainly have not contributed to efficiency enhancement. The rule that I have suggested on past occasions to deal with mergers or restructuring, as it is euphemistically called these days, is to prohibit mergers and acquisitions by companies on the Fortune 500 list, let us say. Prohibit mergers outright unless the proponents of an acquisition can demonstrate that the merger will promote operational efficiency, that it will promote innovation efficiency, and that it will promote competitiveness in world markets, and finally, that that objective cannot be achieved in any other manner.

Now, I submit to you humbly, Senator, that not a single merger in the steel industry that I am familiar with among the large, integrated producers, could have met that burden of proof.

Well, just take these examples, if I may cite them for the committee. In the middle 1960's, LTV acquired Jones & Laughlin Steel. Lykes acquired Youngstown. The theory behind these mergers which were initially challenged by antitrust but the challenge was later withdrawn was that the conglomerates acquiring those two companies would inject an elan vital into somnolent enterprises. The curtain falls on act 1.

In the middle-1970's, it was found that LTV and Lykes had not injected new capital into their acquisitions. Indeed, that they have milked the companies that they had acquired. There was not modernization; there was not any improvement in the status of Jones & Laughlin and Youngstown. What was the solution? Merge Jones & Laughlin and Youngstown Sheet and Tube. Curtain falls on act 2.

We now move to the 1980's. I think it was 1983 that this Jones & Laughlin/Youngstown combination then acquired Republic Steel and we are talking about the six largest steel companies in the country. Well, 2 years after that acquisition, LTV as you well know, went into bankruptcy. In other words, if the achievement of superior efficiency and enhanced competitiveness are the objectives, this restructuring as it is diplomatically called, simply has not done the job. And to blame the current malaise of the steel industry or indeed, any other import-impacted industry, on the antitrust laws, is simply to take liberties with the facts.

Mr. SIMS. If I might just add a point there, Mr. Chairman, I did not have any direct involvement with the other transactions so I cannot speak to them, but I was involved in the LTV/Republic transaction and do have some knowledge about that.

There is not any doubt in my mind that that transaction did, in fact, produce significant efficiencies. It is also perfectly clear that those were not sufficient efficiencies to withdstand the continued heavy price pressure of imported steel.

The CHAIRMAN. How much of it was for tax reasons?

Mr. SIMS. How much of the transaction was for tax reasons?

The CHAIRMAN. How much of the rationale for the merger, the acquisition?

Mr. SIMS. I think that would depend on who you talk to. If you talk to the shareholders of Republic Steel, I do not think they would say it was very much at all. They were looking for a way to preserve the investment that they had made.

The CHAIRMAN. But they were not the ones who made the decision.

Mr. SIMS. Well, the officers of Republic Steel and the directors were presumably acting on behalf of the shareholders.

The CHAIRMAN. That is not particularly relevant, I guess.

Mr. SIMS. My point is simply that the fact that the companies failed 2 years after the merger does not tell you anything about whether there were significant efficiencies, because it may well be, and many of the people involved in the transaction I think would argue this, that but for the merger, you would have had a failure substantially sooner than that.

The CHAIRMAN. But I do not get the sense that any of you believe that merely relaxing the merger standards for distressed industries is going to be any panacea.

Mr. SIMS. No, I do not think it is a panacea. I also do not think it is necessary, if the merger standards that we are talking about are the ones that are in vogue today. If we are talking about the merger standards of the 1960's and the early 1970's, I would have a very different answer.

The CHAIRMAN. Let me shift gears here. As you know, the administration proposed that merging firms in import-battered industries be exempted from the merger standards of the Clayton Act, unless there is a significant probability that the combination will be anti-competitive. That is what I have been meaning. We are all talking about the same standard, right?

Mr. SIMS. Right.

The CHAIRMAN. And so the fact whether it is a significant probability or the existing standard is not something that is going to make any real difference in your view, Mr. Sims.

Mr. SIMS. That is correct.

The CHAIRMAN. I ask you, Mr. Barnette, do you think that the courts are adequately taking foreign competition into account in considering either government or private challenges to proposed mergers?

Mr. BARNETTE. To date, and in the current environment, I believe that that is the case, Senator. The focus of the foreign competition issue as a matter of its implementation, I think is much more focused at the Department of Justice level, in reviewing and permitting transactions to go forward and I believe as Mr. Sims has commented, the recent history has taken into account foreign competition.

I believe the present merger guidelines, those which courts do refer to but are not bound by them certainly, still do not take into adequate account, certain aspects of foreign competition. There is considerable administrative flexibility in dealing with those concepts. The 1984 merger guidelines are a step forward, though, in recognizing it, and I think that probably is an outgrowth of LTV and the discussions that Secretary Baldrige and then Assistant Attorney General McGrath and others were having during that point in time.

In terms of the courts, Mr. Sims is far more experienced than I, but I do not presently see a problem in the courts' recognition of foreign competition.

The CHAIRMAN. How would you respond to that, Professor Adams?

Mr. ADAMS. Well, the Justice Department, under the 1984 guidelines, takes foreign competition into account but seems to ignore the fact that in some industries that competition is more theoretical than real when you consider the massive import restraints, orderly marketing agreements, et cetera, that seem to be in force.

So it is one thing to say that foreign competition could exert pressure on the domestic industry and then, in the next breath, to say we will negotiate orderly marketing agreements with some 20 separate countries as has been done in steel, to limit that foreign competition and the extent to which it can impinge on domestic markets.

That does not make any sense to me.

Mr. BARNETTE. It makes eminently good public policy sense, Senator, because the only reason those restraint agreements were entered into was to cause the individual companies to unilaterally restrain themselves from enforcing our trade laws. This was done with the full litigation pressure of the 201 case and with the review and approval of the Congress, and at any time those agreements can be terminated by the filing of massive trade litigation. I would submit this is in the overall public interest.

Moreover, the entrance of imported product under those voluntary restraint agreements in terms of price—we are talking only volume under the VRA—the price levels of the imported product are not affected and the exhibits annexed to my testimony I think clearly bear that out. So there, of course, are changes that could be made in any processes we have in place but I think that the present program is indeed not only in the interests of the steel companies, but it is in the overall public interest.

Mr. SIMS. It might be interesting, Senator, to explain how the 1984 guidelines came to have the recognition of foreign competition in them that they now have, because the 1982 guidelines put out by the Department of Justice—the first new set of guidelines since 1968, the guidelines put out by Assistant Attorney General Baxter that really made dramatic changes in the way the Antitrust Division was describing how it dealt with merger analysis—were not nearly as sympathetic to foreign competition. Indeed, at the time of the LTV/Republic transaction, the Antitrust Division originally took the position that it would oppose the transaction, and the basis of the opposition was its decision that it would give no weight—zero weight—to either existing or potential foreign imports because of the theoretical possibility, as Dr. Adams puts it, of quotas or tariffs or some other trade barriers.

If they had given proper weight—if they had weighed existing foreign steel imports into their mathematical calculations, the LTV/Republic transaction would not have raised antitrust issues under their own standards in the 1982 guidelines.

But they gave it zero weight. That created an enormous firestorm of protest, as you no doubt recall from Secretary Baldrige and others. The Antitrust Division eventually changed its position after some relatively minor divestitures were entered into and then a year later, came out with the 1984 guidelines giving much greater weight to the impact of foreign competition.

I think that illustrates how fragile current merger policy is, because it depends on a considerable amount of relatively unfettered discretion by the people running the Antitrust Division or the FTC.

The CHAIRMAN. And how close to the general election?

Mr. ADAMS. May I add something?

The CHAIRMAN. And how close to the general election?

Mr. SIMS. That probably is relevant too.

The CHAIRMAN. Yes, yes.

Mr. ADAMS. May I add something to what Mr. Sims has said?

The CHAIRMAN. Please do.

Mr. ADAMS. As I recall it, Assistant Attorney General McGrath objected to the LTV/Republic merger on two grounds. He did not want to take foreign competition into account because of the existence, at the time, of trade restraints and second, because the effi-

ciencies that were claimed for the merger, in his opinion, were not substantial. Is that correct, Mr. Sims.

Mr. SIMS. Those were the two reasons he gave, that is right. Of course the efficiencies, whether they are substantial or not, are totally irrelevant until and if you come to the conclusion that there is an anti-competitive problem with the merger. And he would not have been able to come to that conclusion if he had taken proper account of existing, not potential but existing, foreign competition, which he declined to do.

Mr. BARNETTE. May I add, Senator, it is also helpful to discuss this in the real world context, as I suggested, there is a 200 million ton overhang in excess capacity, massive government ownership of the steel producing companies that are bringing products into this market, the only free world open market at some 23 million net tons of imports. So, do you measure the competition factor here in terms of sales or in production capacity?

The CHAIRMAN. What percentage of your production, your company, goes to the export market?

Mr. BARNETTE. It is so limited, Mr. Chairman, that in recent years it has been 1 percent, a very nominal amount and that is true of the domestic industry. There are signs from time to time in product-specific categories of needs for specific products in certain foreign countries. If I may, I will get the precise numbers for you and submit them for the record, but we are talking about a few million tons.

One percent.

The. CHAIRMAN. One percent.

Mr. BARNETTE. One percent. Mr. Hoppe, who is present at the hearing, Senator Biden, is with me and quite knowledgeable in these matters.

The CHAIRMAN. Excuse me one second. In my opening statement, I raised questions about the possible anti competitive effects of allowing import damaged industries to get together and plan an adjustment strategy to be submitted to the International Trade Commission for temporary trade relief.

I would like to know from each of you whether or not you think that is a serious concern. Start with you, professor, if you would.

Mr. ADAMS. Well, the industry and the trade union have appeared jointly before the International Trade Commission for many years now, and they have certainly cooperated and the government has cooperated with them, but again I would raise the question whether this kind of tripartite planning in the past has done us any good. I do not think it has.

The CHAIRMAN. But how much danger? I guess what I am trying to get at is; To what degree do you think there is a danger that exists in allowing and encouraging industry to get together to plan adjustment strategies to then take to the Commission in terms of its anti-competitiveness?

Mr. ADAMS. Well, the danger, first of all, is self-deception that we as a Nation, embrace this mechanism and think that it can bear fruit in terms of our industrial infrastructure. I do not think it can.

And secondly, there is that this degenerates into the creation of powerful political vested interests that it can subvert and in the past has subverted, the public interest.

The CHAIRMAN. Mr. Sims?

Mr. SIMS. Well, I guess I would like to answer that question with respect to all industries first.

The CHAIRMAN. It is not just steel—it's across the board. That is why I said specifically distressed industries.

Mr. SIMS. I would think that we would justifiably be quite nervous about the leading members of any industry joining together for the purposes of discussing product or production rationalization. If any industry members did so on that basis, I think they would run the risk of serious antitrust liability just for the meeting.

The CHAIRMAN. Even now, wouldn't they?

Mr. SIMS. Absolutely. Now, is there a reason why you should be less concerned about that in the context of a distressed industry and my answer would be no. There is no particular reason to think the dangers are less.

The CHAIRMAN. Well, the rationale offered may be—I do not know whether Mr. Barnett supports it—but the rationale offered to me is that the only way in the case of steel or other industries, particularly industries where there is over-capacity and alleged unfair competition, the only way we are going to get together and do something "sensible" is to do just that. Get together and decide I'll close this facility, you close that facility, this is the game plan in which we will all get together. Right now, as I understand it, that would be a clear violation of antitrust laws.

The proposal is that it is necessary to do it in distressed industries because of over-capacity.

Mr. SIMS. At the time of the LTV/Republic transaction, the head of the Antitrust Division suggested to the parties that that is exactly what they ought to do. That they ought to sit down with each other and other members of the industry, and he would be glad to participate in those discussions, and decide how some of these problems could be dealt with without the necessity of merger. I thought then, and I think now, that that was an extremely shortsighted and unwise suggestion.

The CHAIRMAN. Why shortsighted? I want to know why.

Mr. SIMS. Because there is almost a certainty that you are going to have significant anticompetitive results and no certainty at all and, in fact, no particular reason to think, that you are going to get any better rationalization process, any less disruptive rationalization process, any more efficient rationalization process than you are going to get through individual company arrangements like mergers, joint ventures, or other events that do not require that kind of industry-wide process.

Take a look, as a good example of what you might be facing—although the industries are quite different—at the airline industry before deregulation and the airline industry after deregulation. You had capacity controls in the airline industry before deregulation; you had rate controls in the airline industry before deregulation; you did not have competition on those issues. You had piano bars and various other kinds of service competition. Today——

The CHAIRMAN. In the good old days—when you did not think you were going to get shot out of the air by a Cessna 320. Absolutely, those were the good old days.

Mr. SIMS. I do not want to take on the FAA here but that was a very good system for the business traveler, for the non-cost conscious traveler, but it was not a terribly good system for the people who could not afford to pay a lot of money to fly and who today fly a heck of a lot more than they used to.

And I think the comparison between pre-deregulation and post-deregulation is a good illustration of the kinds of issues you would have to face here.

The CHAIRMAN. Mr. Barnette.

Mr. BARNETTE. It is an alternative that should be certainly considered. Arising from that process, though, how would it be decided and who would decide the companies or the facilities that would survive and those that would be closed? I would continue to suggest that the market will decide that in its own customer, product, quality and price way. It is a very demanding market in the steel industry, but I think we have limited experience even in steel with steel tripartite discussions. It is an alternative. It does happen elsewhere in the world.

The CHAIRMAN. It happens in Japan, does it not, or does it? As I understand it, and correct me if I am wrong, I would like to get a sense of this, I understand that the Japanese organize cartels to facilitate the shrinkage of their distressed industries such as aluminum and shipbuilding.

Do any of you know how well this approach has worked in Japan?

Mr. ADAMS. Mr. Chairman, I think before we go down this road, we might well study the experience that the Europeans have had in the steel industry under the so-called Davignon Plan, and with respect to the crisis cartels in Japan, I respectfully invite your attention to a book by Lawrence Litan, entitled "Saving Free Trade," which discusses in part the Japanese experience with crisis cartels. We have it noted in footnote 23 of our prepared statement.

The CHAIRMAN [cut off of tape].

Mr. ADAMS. I endorse his answer, yes.

Mr. BARNETTE. With respect to the EC, Senator Biden, we are again talking about government-owned companies in those markets. That is not the case yet in the United States and with respect to Japan, while it is a much more complex subject, if you would require me to answer yes or no, the clear answer is yes. They do manage their business and coordinate their business affairs and rationalize private industry with enormous government involvement in steel.

Mr. SIMS. Although I think there is serious debate among people who have studied the issue of whether Japan's distressed industries cartel legislation, which was originally passed in 1978 and then reauthorized in 1983, has been effective, in fact.

The CHAIRMAN. In Japan?

Mr. SIMS. Both within and without Japan, from people outside Japan and a lot of debate inside Japan about whether that has been useful legislation.

The CHAIRMAN. You know, you all are going to think I may be drinking too much coffee when I say what I am about to say, but this discussion has a stark similarity to discussing agriculture in this country.

[A chorus of yeses.]

The CHAIRMAN. I have become painfully aware of the problems of American agriculture and coming from a State that has—it has not been the objective of most Senators from Delaware to seek membership on the Agriculture Committee.

Notwithstanding that, for reasons unrelated to Delaware, I have become very conversant in matters relating to American agriculture, and the debate, as you know, is essentially the same debate.

It just strikes me. We are talking about overproduction, we are talking about consumer interests. We do not talk in terms of antitrust in agriculture, but it has a similarity. I begin to wonder; I guess the reason why I raise that is that I am beginning to wonder whether or not since the problems are very similar in many ways, whether or not the antitrust laws are of any consequence in the outcome of this debate as it relates to distressed industries.

I gather that there has been a consensus that changes in the antitrust policy, as I said to Mr. Williams and Mr. Crandall, that the change in the antitrust policy can play only a limited role, if any, in enhancing competitiveness. But is the reverse true in the absence of antitrust restraints?

This sounds like a silly question, but if there were no antitrust laws, what difference would it make to the steel industry right now? What difference would it make to—literally none—no restraints. You could have predatory practices and they would be condoned. What would happen?

Run through a scenario for me. Wipe out the Clayton Act. We just eliminate it, just wipe it out. As it relates to steel, when the real problem is this, when an overwhelming problem is overcapacity, what impact would it have if we just did away with the antitrust laws?

Mr. SIMS. I will give you an answer that will sound a little flip but really is not intended to be.

The CHAIRMAN. By the way, my question is not intended to be flip.

Mr. SIMS. Yes.

The CHAIRMAN. Sometimes if we examine the other extreme, it gives, at least to someone like me who does not know about the issue nearly as much as the three of you, some insight into what the industry is made of now.

Mr. SIMS. If you did away with the Clayton Act only, I am not talking about the Sherman Act——

The CHAIRMAN. Yes.

Mr. SIMS. If you do away with the Clayton Act so there were no merger constraints in the steel industry today, I do not think it would make very much difference at all. If you did away with steel quotas, tariffs, and other kinds of barriers to imported steel, then I am absolutely certain it would not make any difference at all.

If you did away with the Sherman Act, I think it might make some difference in either of those situations, whether you had protective tariffs or not.

The CHAIRMAN. Why?

Mr. SIMS. Well, because I think you can have short-term anticompetitive effects despite the fact that you have a long-term struc-

turally competitive industry, if you allow the industry to collude. And that is what doing away with the Sherman Act would do.

The CHAIRMAN. If you allow them to collude, and you have no quotas, no tariffs, a true free market, what difference does it make?

Mr. SIMS. They can collude with the French and the Germans and the Japanese.

The CHAIRMAN. That is the difference.

Mr. SIMS. If you only allow the Americans to collude and you do not allow them to talk to the foreigners, then you are right. It probably has much less significant impact.

Mr. ADAMS. The major affect of repealing the antitrust laws across the board would be to deprive vested interests of their opportunity to label the antitrust laws as the whipping boy. The villain in the piece responsible for all of their problems.

The CHAIRMAN. I do not mean to sound so cynical about this. I mean it seems to me that as I pursue this, the more I have read about it over the months and the more I have gotten into it, the less I am convinced that the changes in the law of the margins let alone the wholesale alteration of the law, will impact very significantly on what the real problems are of the industry.

And yet as these changes are offered up, they are offered up as solutions. Am I making any sense?

Mr. BARNETTE. Yes. Yes, great good sense, Senator, and I agree.

Mr. ADAMS. Senator, if I may say this without being flippant, being quite serious now, the antitrust idea I think is a uniquely American experiment. The antitrust philosophy is the same philosophy which underlies the U.S. Constitution and we should talk about it this year especially in the bicentennial.

It believes in the decentralization of power, decentralization of political power in one case, decentralization of economic power, in the other. I believes that competition—the antitrust laws believe that competition better than any Government agency can protect the public from exploitation and extortion.

But the competitive marketplace is not a gift of God or a law of nature. It is a human artifact which has to be preserved and the competitive game has to be played according to rules. And that is the vote of antitrust. And to the extent that we believe in decentralization of power, in the importance of the individual, and the creativity and ingenuity of the individual, we want to make sure that that opportunity is preserved for newcomers to make tomorrow better than the best. And that is a very important basic principle to keep in mind when we talk about economic policy and about antitrust.

The CHAIRMAN. Mr. Barnette, where is the competition from abroad going to come 10 years from now. When you all sit down in your boardroom and you look out there beyond the next quarter, where do you look?

Mr. BARNETTE. Japan, Korea, Brazil, the EC, Canada, and many others.

The CHAIRMAN. They are already there, are they not?

Mr. BARNETTE. Yes. And they will continue to be there and they will continue in many respects to penetrate this domestic market in many cases unfairly, unless our trade laws are enforced or something comparable to the present steel program that is in place con-

tinues during the very time frame, Senator, that you have mentioned.

The CHAIRMAN. Give me an example of where, if there is any, where you believe that we are just getting whipped fair and square. What part of the industry, what aspect of the industry? Is there any place where we simply are just flat-out getting beat? Do they make a better product and not do it unfairly?

Mr. BARNETTE. Many steel products, if there are three measurements—price, quality and service—are fungible, so whether it is a steel product from Canada, or from Japan, or a domestic steel product, they are in that sense, comparable. Because of that, the three factors, price, quality and service, determine customer preferences.

Certainly the quality of the steel products from all the countries that I have mentioned are comparable—I guess we have been calling steel, steel, but our steel business is of an enormously complex business with many, many different products but many of those products, as to the quality of the product, are quite comparable.

On service and price, they may or may not be comparable and, to the extent that price is the overriding determinant, and to the extent that any supplier of the product, whether from the EC or from Brazil or from Korea, can place the same standard of delivery into this marketplace at a different price, there may well be a customer preference for that.

The CHAIRMAN. But it does not break-down on quality anymore?

Mr. BARNETTE. Yes, indeed, it may.

The CHAIRMAN. I am asking you whether—I mean, generally speaking, I mean, as I heard one wag suggest at a meeting that I attended as a young Senator in 1974 in Pittsburgh with 2,500 members of the industry, labor as well as business—that the biggest mistake that we made in World War II was that we bombed the wrong steel mills. Everyone in the room seemed to know what that person was talking about.

And obviously that is a bit facetious but how much progress has been made? I mean, is it not true, or is it true, that one of the reasons why the competition started to shift was not just the unfair practices but the quality of the product and the efficiency with which it was brought to the marketplace?

Mr. BARNETTE. Yes.

The CHAIRMAN. Now, what I am trying to get at is how far along we are. Is that far from the best?

Mr. BARNETTE. We are very very far along, Senator Biden, and I believe if the American steel customers were present at this hearing today, whether the automotive customers or whether the machinery and equipment supplier customers, they would rate the American steel industry extraordinarily high and speaking, which I have been reluctant to do, for Bethlehem Steel only, we think that to the customer base that we serve—not only rated by ourselves which is harsh, but rated by our customers—we are delivering a top quality product into the marketplace. Because there are substitute sources of supply, other domestic and foreign as well, it poses a very tough discipline.

The market decides. We think we have made great progress.

The CHAIRMAN. I ask you one last question. I will ask all of you to respond to this and then I will let you go because I have really trespassed on your time. It has been helpful to me.

What is so bad about having to go to court, a court, administrative or otherwise, to file dumping cases, and letting the judgment be made whether or not such dumping is taking place? Why is that not a better way to proceed than to proceed with tariffs and quotas?

Mr. BARNETTE. Time, delay, uncertainty and damage. A typical dumping or subsidy case requires winning it thoroughly but they are well-defended, and it takes from 15 to 18 months. Any penalties imposed are prospective and a great analogy was used in prior hearings here of the flock of ducks flying over because each one is a different product and that is the way those cases must be brought. Country-specific and product-specific. You bring one duck down and the rest keep flying right on, and yet you must solve all the problems.

The CHAIRMAN. What would happen if you had a situation like we have in other areas of the law where you could be granted the protection in the form of tariffs or quotas during the pendency of the case? If the case ruled in your favor, you would in fact be—the tariff would end—the protection would continue until such time as damages had been received.

Mr. BARNETTE. Senator Specter's early legislation had a solution. A remedy in the United States District Court with injunctive relief at the time of filing that would assess damages for the trading practices that have taken place. That is an approach.

The CHAIRMAN. What happens though if you lose? If you lose do you then have to make up the difference of what, in fact, the protection you received in monetary terms in the terms of the quota? How would you do that?

Mr. BARNETTE. It would be a function of the legislation and of the, I believe in that case, as an equitable matter, the determination by the United States District Judge or the court process.

The CHAIRMAN. What do you fellows think of that approach as suggested by Senator Specter?

Mr. SIMS. I think if Bob Crandall were here today, he would tell you that the most likely reason for today's restraints by foreign steel importers are not the imposition of the direct quotas that have been negotiated or put on but have been the threats posed by dumping and similar kinds of litigation that have been foregone because of the quotas.

The CHAIRMAN. Say that again now. I am sorry.

Mr. SIMS. There is a good argument and I cannot tell you that I know the facts one way or the other, but I know that Bob Crandall does and probably would make the argument if he was here today, that the reason foreign producers are restraining themselves to the extent they are restraining themselves is not because of the quotas, because he believes, and there is a very good argument to this effect, that a country-by-country quota is something that can be worked around. As soon as you know what it is, you just ship it to Bermuda or wherever, and it comes in from there. So it is not the quotas that are keeping steel out, but it is the fear of the dumping actions that would exist but for the quotas.

So I think you ought to give great respect to the in terroem effect of the possibility of dumping actions as well as the actual effect of successful actions.

The CHAIRMAN. Professor?

Mr. ADAMS. I have not examined that proposal myself and would hesitate to comment on it.

The CHAIRMAN. That is the most admirable answer I have heard for a long time from a witness. That never stops us, we Senators, but I am impressed that it slowed any witness up. I am not being facetious; I appreciate your candor with me.

I really appreciate your cooperation today, and I mean that sincerely. You have gotten a bit of the run-around. We started 40 minutes late; we had to go into the afternoon; you had to adjust your schedules; but it was truly helpful to me and, in turn, to the committee. We are going to be examining tomorrow similar questions as they relate to a very different industries. I am not sure the answers will be all that different, but I am interested in finding out. Thank you for being willing to have an exchange among yourselves. That is very helpful to the committee. I am impressed by your testimony and thank you very much. The hearing is adjourned until tomorrow at 10. Thanks a lot.

[Whereupon, at 3:27 p.m., the committee adjourned to reconvene at 10 a.m., May 7, 1987.]

COMPETITIVENESS AND ANTITRUST

THURSDAY, MAY 7, 1987

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The committee met, pursuant to notice, at 10:15 a.m., in room SD-226, Senate Dirksen Office Building, the Hon. Joseph R. Biden, Jr. (chairman of the committee) presiding.

Also present: Senators Grassley and Metzenbaum.

Staff present: Cindy Lebow, General Counsel.

OPENING STATEMENT OF CHAIRMAN JOSEPH R. BIDEN, JR.

The CHAIRMAN. The committee will come to order.

We are going to begin, notwithstanding the fact that Mr. Porter is not here yet. His plane is delaying him, but we will allow him to begin his testimony when he arrives.

Yesterday, this committee heard the views on the effects of antitrust law and enforcement policies on traditional industries in this country, industries that need to restructure in order to regain international competitiveness. Today, we turn our attention to the other side of the competitiveness problem, or the other side of our competitiveness promise, our high-technology industries

During the past several years, our country's technological base has been threatened by foreign competitors. Several of our key industries have been forced to abandon production of important products, many that they themselves invented.

This retrenchment has already had one major adverse effect on our country, we have become "high-tech debtors." In 1980, we exported $27 billion more in high-tech goods than we imported. Last year, for the first time ever, we ran a trade deficit of nearly $3 billion in these same goods. Our position promises to get even worse in the coming years. The workers and the communities that support our high-tech industries have come to know the same pain from contraction and adjustment that as afflicted the traditional sectors of our economy.

But there are other risks to our country from these changes. As we withdraw from the production of high-tech products, we jeopardize our ability to develop future technologies. These technologies will not only affect the kinds of jobs our country generates, but also will determine the consumer products we enjoy and, most fundamentally, our ability to maintain a strong national defense that is not dependent on foreign suppliers of crucial components.

There are many views about what has caused this situation. Some blame unfair foreign trading practices. Some point the finger

at lax or timid management of American companies. Many have noted the long-term decline in the percentage of the gross national product devoted to research and development, although this decline has been halted in the past 3 or 4 years. Still others believe that our inventive capability is intact, but that we lag in development and commercialization of inventions.

Finally, some people contend that our Nation's antitrust laws are an impediment to collaborative research and development. This possibility is a matter of particular concern to this committee. Our antitrust laws are intended to foster competition in order to benefit our Nation as a whole. It would be a serious mistake if, in our pursuit of competition among rival firms, we sacrificed the dynamism and innovativeness of our economy that in the long run stands to benefit both consumers and the business community.

But of course, our antitrust laws and enforcement have not been static. The Federal Government in the past 6 years has become extremely sympathetic—many have said overly sympathetic—to companies' claims of cost savings and efficiency from mergers and joint ventures.

With particular regard to collaborative research efforts, the Justice Department issued an antitrust guide for research joint ventures in 1980 that sought to allay concerns about overly stringent enforcement against bona fide R&D joint ventures.

In 1984, Congress considered the issue of R&D joint ventures. We learned at that time that there had been only three challenges to such joint ventures in the previous 15 years. Nonetheless, I vigorously supported, and the Congress passed, the National Cooperative Research Act in order to offer greater antitrust protection to companies forming research joint ventures. More than 50 such ventures have taken advantage of the provisions of that Act.

Having gone this far, we wish today to learn whether we have cleared away all antitrust obstacles. That, of course, does not mean we intend to clear away the applicable antitrust laws, which have been a linchpin of this country's growth and prosperity during the past 100 years. Rather, our concern is over any remaining impediments to legitimate research and development or commercialization activities that will enhance the international competitiveness of our economy into the next century.

I have asked the witnesses to address these issues. Some will also be able to shed light on the competitive problems of our important semiconductor industry and the research ventures that it has formed in response to these problems. I also want to explore the nature of R&D policies and institutions, and antitrust enforcement in the countries with whom we are competing.

On behalf of the committee, I would like to welcome our panel. I will ask each witness to limit his oral statement to no more than 10 minutes, and, without objection, your entire statement will be placed in the record.

Our missing panelist who is on his way is Michael Porter, Professor of Business Administration, Harvard Business School, Boston, Massachusetts.

That is what I call timing. Also George Scalise, Senior Vice President, Government and Industry Relations, Advanced Micro Devices, Sunnyvale, California; and Professor Joseph R. Brodley,

Boston University School of Law, Boston, Massachusetts, and Richard Levin, Professor of Economics, Yale University, New Haven, Connecticut.

Maybe what we should do, to allow some breathing room here for Mr. Porter, maybe we should start at the opposite end of the table and work our way across. As I said, if you would identify yourself for the record and try to limit your statement, if you could, to 10 minutes so we have enough time to have an exchange among us and among all of you.

Welcome.

A PANEL CONSISTING OF RICHARD LEVIN, PROFESSOR OF ECONOMICS, YALE UNIVERSITY; JOSEPH F. BRODLEY, BOSTON UNIVERSITY SCHOOL OF LAW; GEORGE SCALISE, SENIOR VICE PRESIDENT, GOVERNMENT AND INDUSTRY RELATIONS, ADVANCED MICRODEVICES, ON BEHALF OF SEMICONDUCTOR INDUSTRY ASSOCIATION; AND MICHAEL E. PORTER, PROFESSOR OF BUSINESS ADMINISTRATION, HARVARD BUSINESS SCHOOL

Mr. LEVIN. Thank you, Mr. Chairman. I am Richard Levin, Yale University.

I have been asked to testify this morning concerning the effects of the antitrust laws and enforcement policies on the ability of American firms at or near the frontier of technology to compete effectively in world markets.

Specifically, I have been asked to discuss whether the merger provisions of the Clayton Act or the scope of the National Cooperative Research Act of 1984 should be amended to enhance the competitiveness of American firms. As one who has studied and written about the semiconductor industry, I have been asked to address these issues with special attention to that fading star in America's high-technology constellation.

To put matters in proper perspective, it is important to assess whether and to what extent the performance of America's high-technology industries is unsatisfactory. The persistence of a large deficit in the balance of trade despite 2 years of steady decline in the exchange rate is troublesome, and the highly visible plight of the merchant semiconductor industry lends credence to the view that the entire high-technology sector may be plagued by the same ills that have beset our more mature manufacturing industries. But a closer look at the data tells us otherwise; taken as a whole, America's high-technology industries have held up rather well.

No single measure provides a sufficient summary, but it is difficult to find unmitigated gloom in the foreign trade data. There has been a substantial increase in the penetration of high-technology imports, but, with the exception of Japan, all of our major trading partners have a share of such imports in domestic consumption that is at least double our own. Our share of total worldwide high-technology exports has slipped from a bit more than one-third to a bit less than one-third, but Japan, the biggest gainer, has seen its gains come primarily at the expense of other OECD countries.

A particularly useful indicator of the comparative advantage of our high-technology sector is the U.S. share of all OECD high-technology exports divided by the U.S. share of all OECD manufactured

exports. By this measure, the performance of high-technology industries has remained roughly constant since the early 1960's and at a level substantially higher than that of all but one of the other large OECD countries. Only Japan has risen to rough parity with the United States, and once again, its gains have come at the expense of Europe and Canada, not the United States.

More purely technological indicators of our international position give even less cause for pessimism. Much has been made of the enormous increase in the share of U.S. patents granted to foreigners, but the increased filing of patent applications outside the country of invention has been a worldwide tendency.

Consider the following measure: the ratio of a country's external patent applications to the applications it receives from foreigners. We might think of this as a crude balance of trade in patent applications. In 1983, the last year for which I have seen complete data, the United States "exported" nearly three times the number of patent applications that it "imported." No other country came close; Japan and West Germany had ratios of exports to imports that were just below two. Switzerland just about broke even, and all the remaining OECD countries were net importers.

The point of all this is to call into question what may be an implicit premise underlying the current work of the committee—that American firms at the technological frontier are faring poorly in worldwide competition. In fact, the United States has not yet surrendered its leading position in high technology.

Despite intense and growing international competition, U.S. firms continue to play a leading role in the aircraft, computer, instrument, and pharmaceutical industries, and in certain areas of the semiconductor business as well. Of course, it is logically possible that the competitive performance of our successful high-technology industries would have been markedly better in the absence of burdens imposed by the antitrust laws. I am aware, however, of no evidence to support this conjecture.

Let me turn to the condition of the merchant semiconductor industry in particular. In 1970, U.S.-owned companies accounted for 57 percent of the worldwide sales of semiconductor products. Japanese companies held a 27 percent——

The CHAIRMAN. What percentage?

Mr. LEVIN. Fifty-seven percent. Japanese companies held a 27-percent share, with the remainder divided among European producers. The share of U.S. companies rose gradually through the 1970's, reaching a peak in 1979. Between 1979 and 1985, the U.S. lead narrowed from 62-25 to 45-42, an extraordinarily rapid decline over a 6-year period. And I understand that the most recent data show the Japanese passed the United States narrowly in 1986.

American semiconductor firms have suffered most in the manufacture of dynamic random access memory chips, the so-called D-RAM's, the product that has been a principal subject of the recent trade dispute with Japan. U.S. firms had only 16 percent of worldwide merchant sales of 256-K D-RAM's in 1985, and several major merchant producers—among them AMD, Intel, Mostek, Motorola, and National Semiconductor—exited the market by mid-1986. In contrast to the D-RAM experience, U.S. firms have retained a strong position in microprocessors and related logic devices, with

over 60 percent of world sales in this general category, and an even higher share of the most technologically advanced products. U.S. firms remain at the forefront of design innovation in the smaller but growing markets for application-specific integrated circuits.

Japanese firms have succeeded in areas of the semiconductor business where the product technology has become relatively standardized and where control of manufacturing costs is a crucial element. U.S. firms remain strong for the present at the frontier of product technology.

One interpretation of these facts is that there is simply no problem: The United States is at the frontier in developing new products, and its resources will flow into the newer areas of semiconductor technology where it will continue to dominate world markets, leaving the high-volume, low-profit D–RAM business to the Japanese, and increasingly to the Koreans.

Some industry participants question whether this can be a successful strategy in the long run. Historically, the D–RAM business, precisely because of its high production volumes and relatively simple product designs, has been a "technology driver." As production equipment has improved, and the manufacture of chips of increased density has become feasible, D–RAM's have been the first product to employ the latest advances in process technology.

Production experience gained in the high-volume manufacture of D–RAM's has proved the quickest way of acquiring detailed knowledge of and refining current process technology. This knowledge and these refinements tend to have applicability that is generic to semiconductor manufacture. Thus, some believe that it will be impossible to remain at the frontier indefinitely without process learning from D–RAM production experience to complement advances in design technology. I am mildly skeptical about this belief, since there is some evidence that other high-volume products, such as E–PROMS—erasable, programmable read-only memory—can serve as an adequate substitute for D–RAM's as a technology driver.

This point of view nonetheless underlies the current proposal for a joint venture open to all domestic firms that would focus on process technology in general and on D–RAM production in particular. There is apparently some difference of opinion within the industry about whether Sematech should engage in full-scale production of D–RAM's, and I understand the current proposal is not to, but apparently there is wide agreement that the venture should go beyond research and involve at a minimum a jointly-owned pilot production line that would permit the testing in practice of new production methods and equipment.

Now, I have argued that a general decline in the competitiveness of our high-technology industries can provide no rationale for antitrust reform, because there has been no general decline. It remains to determine whether the specific condition of the merchant semiconductor industry suggests useful or constructive modifications of the antitrust laws.

A natural starting point is to ask how the Sematech proposal would fare under current antitrust law and enforcement policy. Were the proposed venture to remain a research and development effort, and provided that any technology it develops is transferred

to its members on terms that would not inhibit competition in the relevant product markets, there is every reason to expect that the Antitrust Division would have no objection, given that several substantial independent sources of R&D would remain in the worldwide industry. The limitations on recovery mandated by the National Cooperative Research Act of 1984 should be sufficient to deter all but very well-grounded private suits, and, in any event, the requirement that a rule of reason be applied to the venture should be sufficient guarantee that the public interest will be served.

Matters get more complicated should the members of Sematech choose to engage in the joint production of D–RAM's. From an economic point of view, one most likely to be applied by the Antitrust Division, several factors—the high costs of constructing a state-of-the-art fabrication facility, the fact that the benefits from advanced production methods could be reaped over a wide spectrum of products sold on highly competitive markets, the relatively modest combined share of U.S. firms in the D–RAM product market, and the history of aggressive price competition in that market—would favor a conclusion that such a venture would not injure consumer welfare.

Presumably, the venture could be designed to avoid most features that would weigh heavily on the other side of the balance, such as joint marketing arrangements or restrictions on independent production of trade sanctions, indeed even the requirement that imported D–RAM's be priced at "fair market value" as defined by the trade statutes, might be regarded as a factor conducive to the possible future exercise of market power by domestic industry participants. Indeed, the current condition of the domestic industry, however, makes it unlikely that the Antitrust Division would challenge the venture on these grounds, but it is a factor that deserves considerable weight.

Although the principal elements in an economic analysis seem reasonably clear, it is less clear to me, at least, how the courts would be likely to regard a joint production venture encompassing the entire domestic industry, even where the domestic industry may have no market power. I would defer to Professor Brodley and others more knowledgeable than I on the state of the case law.

Suppose we assume, however, that a full-scale joint production venture involving all domestic firms would not survive scrutiny by the courts. We should not leap to the conclusion that the antitrust laws require modification, nor should we necessarily conclude that an exemption is warranted. There is, after all, considerable disagreement within the industry about whether a joint D–RAM production venture would be more likely to succeed in meeting the Japanese challenge than an almost certainly legal joint research venture on process technology. There is, moreover, absolutely no evidence of which I am aware that a joint production venture of efficient scale would require participation of the entire domestic industry.

To the extent that a joint production venture is thought a good idea by some and not by others, the greater the likelihood that one might be undertaken by a less inclusive group of firms. Were this the case, the probability of surviving antitrust scrutiny would be

increased. To the extent that the antitrust laws tilt a prospective joint venture away from full scale production and toward research, and tilt a prospective joint production venture away from industry-wide participation and toward a smaller set of participants, consumer welfare is better protected, with little or no real cost to the efforts of domestic firms to remain internationally competitive. Whatever the merits of a prospective joint venture on focused on semiconductor process technology, and they may be considerable, there is no compelling case for modification of the antitrust laws or for a special exemption.

The CHAIRMAN. Before we go to Professor Brodley, let me ask you just one question—I guess I will save the questions for later.

Professor Brodley.

Mr. BRODLEY. I am Joseph F. Brodley, Professor of Law at Boston University. Innovation and our concern for innovation is perhaps the most critical economic issue with which we are confronted. It is innovation that makes the greatest contribution to growth of social wealth over time. And it is therefore appropriate that we examine the relationship between antitrust and innovation. Most especially we should focus on collaboration between competitors because such collaboration is increasingly proposed as a means for increasing productivity.

Antitrust itself has no greater role than to promote productivity and technological progress. So I think on that there is perhaps agreement. The issues I wish to discuss today are four: (1) R&D collaboration, (2) collaboration in production, (3) the need for additional antitrust legislation, and (4) the positive contribution that antitrust enforcement can make to innovation and U.S. competitiveness.

I turn first to R&D collaboration. In 1984, Congress addressed this issue in the National Cooperative Research Act, and we now have had 2½ years of experience under that act. With the help of the committee's advisor, Professor Kwoka, I am able to present the following data.

There have been 117 filings under the 1984 Act. Of this number, approximately 56 separate research groups are represented. The number of projects is 89, of which at least 18 involved the computer industry. Now, those figures are significant as compared with evidence that was developed at the 1984 hearing, which indicated that there had been relatively little use of the R&D joint venture. Thus, the 1984 Act clearly seems to have had a very real effect in encouraging R&D joint ventures.

With respect to the Sematech proposal to engage in an R&D joint venture, based on what I know, I see little problem from an antitrust viewpoint in their proposal. The semi-conductor innovation market is most certainly worldwide and within that framework it would not appear that the proposal would injure innovation competition. But I hasten to add that I lack detailed knowledge about the proposal.

In general, I would conclude that there is no need to amend the antitrust laws to make any greater provision for R&D collaboration.

With respect to production collaboration, the issue is less clear. To begin with it is uncertain economically how important produc-

tion collaboration is. But I would leave that question primarily to the economic witnesses. In my testimony I shall assume that production collaboration is highly important in a particular field, such as the semiconductor industry where I understand the Sematech proposal originally involved some discussion of collaboration in production, as well as R&D collaboration. What would be the antitrust analysis of such production collaboration?

First, the rule of reason would apply and not the per se rule, because there is a significant integration of economic activity in the construction of a new manufacturing plant. This is the domain of the rule of reason and not the per se rule.

Second, there would be no problem at all if the participants lack market power. Market power where? Market power in the realistic market in which they compete, and if they are competing in the world market, then the world market would be the measure for whether they have market power.

Now, as Professor Levin said, if we construct high trade barriers then the situation changes. In that event the U.S. market may become the relevant antitrust market and that raises more serious antitrust issues. But given a realistic world market, productive-enhancing collaboration is likely to be unlawful only if the participants have market power.

Third, but even if the Sematech collaborators have market power, that does not mean that the productive arrangement is unlawful. The antitrust courts today would look to the economic and productive necessity of the collaboration. If in fact the collaborating parties are attempting to do what they could not do separately, and if the group that is joined together is no larger than necessary to do the job, then antitrust law today would allow a collaboration at the production level, in my opinion.

Yet, there remains a possible problem. Productive-enhancing collaboration may be deterred because the law is not well understood or because business may fear that antitrust would get it wrong. These were, of course, the very considerations that were presented in favor of the National Cooperative Research Act three years ago. So once again we face the question of how antitrust law should adjust to perceptions of legal risk that may be exaggerated.

Before considering that question let me take just a minute to offer some perspective on where we are today in the enforcement of the antitrust laws. If the committee would turn to the end of my prepared statement, they will see some exhibits, and the first of these, four pages from the end, is called exhibit 1.

We are in an era of drastically declining antitrust enforcement. In exhibit 1, you see the staffing of the Justice Department Antitrust Division in comparison to the gross national product, which is a fair comparison. The GNP is what they are policing. As you can see, over this long period of years the staffing of the Antitrust Division has declined to one-fifth of what it was in 1951.

The CHAIRMAN. If it were not for Senator Metzenbaum, it would be down to zero. Thank God for Senator Metzenbaum. [Laughter.]

You know, they came along this last time—how many did they put back in, Howard?

Senator METZENBAUM. A hundred, with little help from his friends.

Mr. BRODLEY. This, Senator, was a chart which the staff of the House Judiciary Committee prepared, and I think it includes the latest budget proposal at the end.

The CHAIRMAN. This does include the latest?

Mr. BRODLEY. Yes, I think so, I think the last figure includes their proposal for 1988, as presented to the House Judiciary Committee.

The CHAIRMAN. Is that their proposal?

Mr. BRODLEY. Yes. But if you knock that off, it does not change the picture much.

Now, if you turn to exhibit 2, you see FTC and Justice enforcement of mergers in terms of percentage of merger transactions which the agencies have identified for enforcement action. Once again, you see that the percentage of transactions has declined drastically over those years.

The CHAIRMAN. I am sorry, explain that graph again.

Mr. BRODLEY. It shows the percentage of reported merger transactions as to which the enforcement agencies took significant enforcement action.

The CHAIRMAN. I see.

Mr. BRODLEY. So in 1979—the first years shown in Exhibit 2—the antitrust agencies took enforcement action in 2.3 percent of reported mergers and by 1986. The figure had declined to one-half of 1 percent, or by almost 80 percent.

The CHAIRMAN. Thank you.

Mr. BRODLEY. Now, if you will perhaps just for amusement—but I think it will make a point—turn to the last page, Exhibit 4, you will see the U.S. merchandise trade balance, which is moving in exactly the same downward direction as the antitrust budget.

I am not, of course, suggesting that the decline in antitrust enforcement is moving the U.S. trade balance down. What I am saying is that it is a little hard to believe that this drastically declining use of antitrust resources is what is responsible for our falling trade balance, and that is the point I wish to make.

The CHAIRMAN. Professor, in this town you are fully able and within your rights to use these kinds of preposterous graphs. The President does it all the time to make his case. He stands before the American people and does similar things to prove cases that cannot be proved. I think it is both novel and amusing and hopefully more probative also. [Laughter.]

Mr. BRODLEY. I have one more for you, although it is not a picture, and that is Exhibit 3 immediately preceding, and that deals with civil litigation, civil antitrust litigation. This shows a similar pattern of decline, not quite as drastic. But if you look at the very last column on the right, which shows antitrust cases as a percentage of all civil cases, you will see that the percentage has fallen from 1.2 percent of all civil cases to only one-half of 1 percent, or a decline of about 60 percent, so that perhaps gives us a bit of perspective.

The CHAIRMAN. Now explain to me how the President can say reading scores are down because we are spending money on education and I will now understand it. [Laughter.]

Mr. BRODLEY. I am almost out of time, so I have to quickly conclude. I am suggesting that there is no need for merger amend-

ment. There is no realistic risk of treble damages in a merger case, and I do not think that any additional merger legislation is needed.

The CHAIRMAN. Is there not a realistic risk because of who the occupants of the Justice Department are or because of the law?

Mr. BRODLEY. No, because of the law. Theoretically, the merger is a union of firms so that the merger agreement itself could be alleged to be an unlawful agreement restraining trade. But from and after the date of union there is only a single legal entity, so from that point forward the conspiracy problem drops away. In addition the difficulty of proving that a merger has led to damages has to my knowledge prevented significant damage recoveries in merger cases.

Now, with respect to joint venture or contractual collaboration, there is a conceivable conspiracy risk, and also a conceivable damage risk. The parties continue as separate legal entities capable of conspiring. However, I think the burden is very heavy on those who would wish to demonstrate that desirable production collaboration has been prevented by the fear of treble damages.

I have not seen cases where useful production collaboration in recent years has been subject to significant damage penalty. However, if it could be shown that desirable production collaboration has been deterred, then I would be willing to examine whether there ought to be some adjustment of antitrust law. But I would make this point: If the proposed legal adjustment were to take the form of a broadening of the National Cooperative Research Act to include production collaboration it is vital to note that the present notification procedures under the Act would be inadequate as applied to production collaboration. A much stronger review procedure would be needed. I would suggest that transactions involving production collaboration should be subject to scrutiny both before the fact to determine that the proposed collaboration is "in the ball park" of probable legality, and after-the-fact to assure that efficiencies resulted and that collusion did not.

A procedure of this type is followed by West Germany antitrust enforcement authorities in connection with joint ventures.

My final point is simply this: Antitrust can make a positive contribution to innovation by strengthening key areas, and the two that I would call your attention to are stability in the application of antitrust rules and more vigorous enforcement against exclusionary practices. Sudden swings in antitrust doctrine are extremely costly to business planning and create legal risk. I think that the bipartisan consensus approach to antitrust that has prevailed in most of the post-war period added stability and thus contribute of to production efficiency in the United States in general.

Finally, I think more enforcement is needed against exclusionary practices—deliberate strategies that raise the costs of new entrants and smaller firms. If a small, innovative firm falls victim to practices that raise its costs, that is a direct blow against innovation and the competitive system. Small firms have made an enormous contribution to innovation and technological progress, and antitrust strictures against exclusionary practices has not been much enforced in recent years and ought to be more strongly enforced.

Thank you.

[The prepared statement of Mr. Brodley follows:]

STATEMENT

OF

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ANTITRUST, HIGH TECHNOLOGY AND COLLABORATIVE EFFORT BETWEEN BUSINESS FIRMS

I. The Perceived Problem

The antitrust laws are based on the premise that competition between business firms best serves the economic welfare of society. Yet in an era of high technology and rapid change collaboration between business rivals is increasingly necessary to combine talent and resources that are not present within a single firm. Normally this poses no antitrust problem because the collaboration, while it reduces rivalry between the collaborating firms, does not reduce competition in the market place, but indeed may intensify competition. An antitrust problem arises only when the collaboration involves participants that have market power -- the power to raise prices or otherwise control the market -- or if an antitrust court misidentifies desirable collaborative conduct as anticompetitive. The issue posed by this hearing is whether in such cases enforcement of the antitrust laws inhibits innovative-enhancing collaboration and thereby impedes the ability of U.S. firms to compete in world markets.

In 1984 Congress addressed the problem of U.S. competitiveness in innovation by enacting the 1984 National Cooperative Research Act, which removed the threat of treble damage liability for properly notified R&D joint ventures; and there is every indication that this Act has been effective in its purpose to facilitate R&D collaboration. Nevertheless, there are further calls for antitrust revision. In 1985 the President's Commission on Industrial Competitiveness recommended additional antitrust changes, including definition of antitrust markets to

recognize global competition, recognition of an efficiencies defense in merger cases, the elimination of trebling of antitrust damages in cases other than per se violations and the granting of specific antitrust exemptions for business arrangements that rationalize production or promote "the public good." In 1986 the Administration proposed several antitrust amendments that would have fundamentally narrowed merger law and the treble damage remedy. In the same year Senator Metzenbaum also introduced legislation that addressed several of these issues, notably the recognition of global competition and an efficiencies defense in merger cases. In 1987 many of these proposals and others are again on the legislative agenda.

In the hearing today the Judiciary Committee focuses on the vitally important issue of whether antitrust enforcement has impeded U.S. firms at the technological frontier. In addressing that general question the Committee asks three more specific questions:

1. Should merger law be modified to enhance competitiveness of U.S. firms at the technological frontier?

2. Should the 1984 National Cooperative Research Act be amended to permit collaboration in application and commercialization of product or process innovation? If so, should foreign-owned firms be excluded from participating?

3. Is the new collaborative effort of the semiconductor industry allowable under current law?

In addressing these issues it is important to separate collaboration in R&D from collaboration in production. The two kinds of collaboration pose distinct problems, and I shall discuss them separately. I shall also discuss possible legislation that might be addressed to these issues, including a possible need for greater antitrust enforcement in some areas to promote U.S. competitiveness. Since the proposed collaboration in the semiconductor industry serves as an immediate stimulus for this hearing, I shall first describe that proposal and use it as a specific case example to illuminate the problem.

II. Proposed Collaboration in the Semiconductor Industry

The semiconductor industry has proposed a collaborative effort to restore U.S. competitiveness in the world semiconductor market. The industry proposes to establish a non-profit consortium called Sematech, which would be jointly owned by U.S. semiconductor manufacturers and suppliers. There have been two distinct proposals for the operations of the Sematech consortium, which I shall call Plan 1 and Plan 2. Plan 1 would be limited to R&D, while Plan 2 would also encompass production activities.

Under Plan 1 Sematech would develop new manufacturing methods and materials for the manufacture of computer chips, and would also open a demonstration plant to test the new production methods and to train personnel. Actual manufacturing would be restricted to small production runs. This is the present Sematech proposal, which was announced on March 4 of this year.

Plan 2 is a broader proposal that would include manufacturing as well as R&D. As announced in the press under Plan 2 the consortium would establish a full manufacturing plant capable of handling 300 different kinds of chips and able to produce in massive volume. Press reports have noted that the members of the consortium were concerned about possible antitrust illegality. Plan 2 has not been adopted.

III. R&D Collaboration

Antitrust law recognizes the need for collaboration between competitors in R&D. The law recognizes that the economic motivations and innovation capabilities of a single firm are frequently insufficient to achieve a socially optimal level of innovation because of economies of scale in research and because of the inability of a single firm to capture the full benefits of an innovation. Thus, even prior to the 1984 National Cooperative Research Act (hereafter called the "1984 R&D Act") antitrust enforcement toward R&D joint ventures was highly permissive. In fact, the Antitrust Division had never challenged a pure research

joint venture in the absence of anticompetitive ancillary restraints. See Antitrust Guide Concerning Research Joint Ventures, U.S. Dept.of Justice 2 (1980). Under the pre-1984 enforcement scheme the Antitrust Division would not object even in theory to a joint venture involving basic research unless the venture included the entire industry. Nor would an applied research joint venture raise antitrust problems except when the participating group had high market share. See Antitrust Guide, supra and Brodley, Joint Ventures and Antitrust Policy, 95 Harv. L.Rev. 1521 (1982).

The 1984 Joint R&D Act was intended to facilitate the formation of R&D joint ventures. It was passed not because Congress thought that existing antitrust law significantly barred such collaboration, but to dispel business uncertainty and misapprehensions about the scope of the antitrust laws and specifically the concern that beneficial R&D collaboration would subject participating firms to significant risks of treble damage liability. Accordingly, the 1984 Act requires application of the rule of reason to any properly notified R&D joint venture, limits antitrust damages to single damages for any antitrust claim resulting from conduct within the R&D scope of the joint venture and awards attorneys fees to a prevailing defendant under certain circumstances. To be sure the 1984 Act affirmed the desirability of maintaining effective competition in R&D markets, as in other economic arenas. But when R&D collaboration was needed to advance innovation, the legislative history of the 1984 Act indicates that collaboration was to be permitted to whatever extent might be necessary to promote U.S. competitiveness. Finally, R&D markets were to be defined realistically, which would mean in most cases that they are to be defined as international. See Conference Report on S.1841, Sept. 21, 1984.

The Sematech R&D Consortium

The Sematech proposal to create a consortium to develop new manufacturing methods, materials and equipment, together with a demonstration plant (Plan 1) would appear to fall within the

terms of the 1984 Joint R&D Act. Thus, if properly notified to the antitrust enforcement agencies the consortium would be subject to antitrust inquiry only under the rule of reason and any antitrust damages would be limited to single damages. Moreover, there would be no risk of antitrust damages at all unless the consortium comprised all or most of the U.S. industry and if a smaller group of firms would be clearly capable of undertaking the research with equal capability.

The development of new manufacturing methods, materials and equipment, as proposed by Sematech would appear to be included in the statutory term, "development or testing of basic engineering techniques." See 1984 R&D Act §2(a)(6)(B). The creation of a demonstration or prototype plant to test these techniques would also appear covered by the language of the 1984 Act, which includes in the definition of a covered R&D joint venture "the extension of investigative findings...of a technical nature into practical application...including the experimental production and testing of...equipment, materials, and processes." See 1984 Joint R&D Act §(a)(6)(C). Thus, the present Sematech proposal would seem clearly to be entitled to the protections of the 1984 Joint R&D Act.

Need for Further Legislation

No need appears for further legislation involving R&D collaboration. The President's Commission on Industrial Competitiveness recommended a clarification of market definition in antitrust cases to assure that markets are defined realistically when competition is international. But as we have seen the legislative history of the 1984 R&D Act indicates that this was its clear intent.

More fundamentally, there is every reason to believe that the 1984 Act has been successful in its intended purpose to put to rest uncertainty and concern about the antitrust status of R&D collaboration. Prior to 1984 there appeared to have been a relatively small number of R&D joint ventures. See Senate Report on S.1841, 98th Cong.2d Sess.,pp. 2 and 21 (1984). Since 1984 the number of R&D joint ventures appears to have increased significantly. Not only is this fact evident from the business

press, but it appears also from the volume of notifications under the 1984 Act, which are published in the Federal Register. A recent review of these filings indicates that in the two and one-half years since the 1984 Act was adopted there have been 117 filings, involving 56 separate research groups and at least 89 research projects. Of these projects at least 18 involved the computer industry. Thus far I have found no antitrust litigation attacking a notified joint venture. Thus, there would not appear to be any reason for further antitrust legislation relating to R&D collaboration.

IV. Production Collaboration

The antitrust laws, particularly in recent years, have recognized the benefits of production-enhancing collaboration between business firms. Thus, antitrust law makes a sharp distinction between naked price fixing and market division agreements between competitors and integrations of productive activities, as in mergers and joint ventures.-- Price fixing and divisions of the market are subject to the per se rule, while mergers and most joint ventures are governed by the rule of reason. Recently, for example, the Federal Trade Commission approved a joint production venture between General Motors and Toyota, respectively the leading automotive firms in the United States and Japan, essentially because the venture would promote productivity.

Productive-enhancing collaboration will generally raise no antitrust problem unless the participants have market power. Thus, a joint production facility between smaller companies within an industry would ordinarily pose no problem and courts and enforcement agencies would probably view such a facility as pro-competitive. When participants in a merger, joint venture or similar collaboration comprise a substantial fraction of the industry such as to give them the power to set the price or otherwise control the market, antitrust law examines the particular need and anticompetitive effects of the arrangement. But if the court or enforcement agency is satisfied that the arrangement is necessary to achieve significant efficiencies that

could not otherwise be attained, the arrangement will generally be approved. See generally, Brodley, Joint Ventures and Antitrust Policy, 95 Harv. L.Rev. 1521 (1982) and Brodley, Analyzing Joint Ventures with Foreign Partners, 53 Antitrust L.J.73 (1984).

It is more difficult to justify collaboration in marketing than in production because the need for collaboration seems generally less and the effect on consumers more direct and adverse. Yet a recent leading Supreme Court decision, with only a single Justice disagreeing, upheld application of the rule of reason to a marketing joint venture that involved 70 percent of the industry because the joint venture was necessary to market the product. Broadcast Music, Inc. v. Columbia Broadcasting System, Inc., 441 U.S. 1 (1979).

Thus, antitrust law takes a facilitating approach to productive-enhancing collaboration. If a court or enforcement agency finds a merger or joint venture to be anticompetitive, it ordinarily does not prohibit the collaboration, but instead modifies its terms to permit the participants to achieve as much as possible of the contemplated productive benefit, while removing the anticompetitive problem by modifying the terms of the collaboration. In a merger case this may involve divestiture of specific assets, allowing the merger itself to be consummated.

The Sematech Joint Production Consortium

As described above, press reports have indicated that some participants in the Sematech consortium would like to establish a full manufacturing plant, capable of handling a wide variety of chips and able to produce in high volume. Let us assume that such a production consortium were formed, would it violate the antitrust laws?

The Sematech production consortium would be subject to the rule of reason and not the per se rule. This follows because the consortium involves a significant integration of productive facilities -- the construction of a new manufacturing plant and the offering of a new product. The antitrust inquiry would then center on (1) whether the participants had market power in a properly defined market, (2) whether the collaboration is

necessary to produce the product at feasible cost and (3) whether a less restrictive joint venture, perhaps involving a smaller segment of the market, could have reasonably achieved the same result. If the consortium involves all or most of the industry, there will be a fourth issue involving access by non-participants to the productive output of the joint facility.

The description of the Sematech production consortium published in the press are too sparse to permit an exact assessment of its antitrust legality. However, a production consortium of this type would not violate the antitrust laws if the participants do not have market power -- the power to set price or otherwise control the terms of trade -- in the competitive arena in which they compete, which would here seem to be the world market. Thus, no finding of market power would automatically follow because the participants have a substantial share of U.S. production. Even if the participants did have market power in the relevant world market, the proposed production facility would not violate the antitrust laws if it was necessary in order for the participants to compete effectively against foreign chip manufacturers. In that event an antitrust court or enforcement agency might question whether a lesser group of participants could have achieved the same efficiencies. But if in fact it was necessary for the consortium to include all or most of the U.S. industry, antitrust law would allow it. The courts would correctly reason that in the absence of the consortium, there would be less production and less competition in the market. To prevent collaboration under these circumstances is not a sensible consequence and modern antitrust would not allow it.

The remaining antitrust issue would involve access by non-participants to the output of the production consortium. When a single firm or group of firms gains control of a scarce resource that is necessary for effective competition, the participants are generally required to make the resource available to their competitors on substantially equal terms. See Northwest

Wholesale Stationers,Inc. v. Pacific Stationary & Printing Co., 105 S.Ct. 2613 (1985); Brodley, Joint Venture and Antitrust Policy, supra at 1563-1565. Thus, if the proposed Sematech production consortium cannot be duplicated by the remaining outside producers in the U.S. industry and if it turns out to be as productive as it claims, then outsiders could not be arbitrarily excluded. But does this principle mean that such a production consortium would also have to admit foreign-owned firms?

The antitrust legality of excluding foreign-owned firms from sharing in the benefits of a consortium that controls a scarce resource depends on whether there is a legitimate business reason for the exclusion. See generally, Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 105 S.Ct. 2847 (1985). Thus, if the foreign-owned firms would compromise the security of the venture, that would surely be a reasonable basis for exclusion. Even if there is no security problem, if the foreign-owned firms have access to reasonably comparable home market production, exclusion would not appear to violate antitrust principles. Finally, if the admission of the foreign-owned firms would reduce the expected return from the production facility to the extent that it would not be economically viable, there would be a strong argument that exclusion was justified. This follows because in the absence of exclusion economic output would be reduced, production efficiencies would not be realized and there would be less competition in the world market. It is to be emphasized, moreover, that there is no duty to admit outsiders to the benefits of a joint venture or other collaboration unless the collaborators control a scarce resource in the nature of a natural monopoly.

All of this is to say that if an industry-wide production consortium is necessary for the U.S. semiconductor industry to compete in world markets, antitrust law will not prevent it; and if such a consortium is not needed, there is of course no reason to permit it. Thus, if the antitrust laws would deter desirable productive collaboration, it is either because the law is not

well understood or because business leaders fear that courts would not be able to distinguish desirable collaboration from undesirable. Within this framework we can now consider whether additional legislation is needed to facilitate collaboration in production.

V. Possible Antitrust Legislation

The problem of U.S. competitiveness in high technology is extraordinarily complex. The increasing challenge posed by Japan and other enterprising countries arises from many causes, encompassing the educational system, the structure of the firm, interest rates, savings propensity, stability and discipline of the work force, governmental subsidy and other causes. There is little that legislation can do in any short term time frame with respect to most of these causes, and whatever it does is apt to be expensive. Amendment of the antitrust laws is tempting in this framework because it involves no public expense and appears to work an immediate change. For that very reason Congress should be cautious and even skeptical about claims that weakening of the antitrust laws will promote U.S. competitiveness. After all the purpose of the antitrust laws is to promote competitiveness and throughout almost 100 years of antitrust history the principle of competition has served us well. In considering the need for additional legislation we should, therefore, first consider the present level of antitrust enforcement.

A. Current Level of Antitrust Enforcement

The current level of antitrust enforcement can scarcely be called excessive. Both public and private enforcement have drastically declined in recent years. The decline in public enforcement appears in the vivid graphic figures attached as Exhibits 1 and 2 to this statement. These exhibits, which were prepared by the staff of the House Judiciary Committee for its recent budget hearings, show that in relation to the GNP, professional staffing at the Antitrust Division has fallen to one-fifth of what it was in 1950 and to one-half of what it was

in 1960, and is also significantly below the levels of enforcement in the 1970's. Similarly, the number of merger enforcement cases in relation to total mergers has fallen from a level of 2.2 percent in 1979 to .5 percent in 1986, or by 77 percent.

The decline in private antitrust enforcement has also been dramatic. As indicated in the recent Georgetown study of private antitrust litigation, the number of private antitrust cases has declined sharply since the mid-1970's. As appears in Exhibit 3 antitrust cases as a percentage of all civil cases has fallen from 1.2 percent in the 1970's to only .5 percent in 1983, a relative decline of almost 60 percent. The Georgetown study also showed that while antitrust cases last longer and cost more than the average civil case, the difference is not striking. The average antitrust case lasted for 19 months as compared with 10 months for the median civil case and the average antitrust trial lasted for 11 days, about half again as long as the average civil case. But very few antitrust cases were actually tried. In fact, a total of five federal judges could have tried all the antitrust cases in recent years. Finally, recovery or settlement sums were quite modest in the typical antitrust case. In part at least this is due to the fact that antitrust plaintiffs face stringent standing problems and damage limitations that courts have imposed in recent years, along with more restrictive substantive doctrine. Moreover, many federal courts are far from sympathetic toward private plaintiffs, particularly if the plaintiff is a business competitor.

All of this is to say that the climate of antitrust enforcement is far from excessive. It becomes difficult, therefore, to think that overzealous antitrust enforcement plays any major role in retarding U.S. competitiveness. Indeed, it is an amusing exercise to compare the charts showing the decline in antitrust enforcement, Exhibits 1 and 2, with the declining U.S. trade balance, shown in Exhibit 4. That comparison shows a strong correlation between diminished antitrust enforcement and our unfavorable balance of trade. While I am not asserting or even implying that reduced antitrust enforcement has caused the

unfavorable trade balance, it does seem far fetched to blame over zealous antitrust enforcement for our difficulties in world markets. Moreover, I shall suggest below that too little antitrust enforcement can retard trade competitiveness if it allows cartel arrangements or predatory exclusion of efficient firms. With this perspective let us now examine the specific problems of mergers and joint ventures.

B. Mergers

There appears to be no need to amend the merger law to permit production-enhancing mergers in high technology. Present antitrust enforcement attacks mergers only when they threaten to create monopolistic or near monopolistic conditions. The relevant market in which to examine the merger is the market in which the merging firms are effectively engaged. It follows that when competition is global, the relevant market should be global. Thus, for example, in assessing the recently announced merger between two important U.S. chip manufacturers, Advanced Micro Devices and Monolithic Memories, an antitrust question would arise only if the merger would give the combined firm the power to raise prices or dictate other market terms, in the relevant market, which presumably is global. Even if such a merger did cause a problem in a particular product or geographic market, federal enforcement authorities would no doubt allow a spin-off of offending assets so as to allow the merger to proceed. Finally, as shown in Exhibit 2, only a tiny percentage of mergers are questioned by the enforcement authorities, and of this group only a minuscule number are signficantlty prohibited.

Nor does private litigation significantly deter mergers. The standing of private litigants to challenge mergers is limited under recent Supreme Court rulings. Further, as a practical matter damages cannot be recovered in merger cases in view of the difficulty in showing that a merger caused an increase in prices.

It is possible that future antitrust enforcement may take a stricter view toward mergers, but present participants in mergers have little to fear. The merger statutes require pre-notification of mergers and unless the government institutes

enforcement steps prior to the merger, it is most unlikely that it would later institute action. Certainly, the government has not attempted this in recent years, and a court would scarcely be sympathetic to such after the fact challenge in view of the difficulty of unwinding a consummated merger. While suggestions have been made for amending the merger law to require an efficiencies defense, there seems no need to do so in light of current enforcement permissiveness. Moreover, as a practical matter the enforcement agencies do consider efficiencies in exercising their enforcement discretion, and their guidelines so provide. Thus, I see no need to amend merger law to enhance the competitiveness of U.S. firms at the technological frontier.

C. Joint Ventures and Other Contractual Arrangements

Joint ventures and other contractual collaboration create a legal risk that is not present in merger cases. This stems from the fact that the participants do not merge into a single firm, but remain separate legal entities and thus are legally capable of conspiring in violation of the Sherman Act. As a result participants in a joint venture face a risk of treble damages that as a practical matter merger participants do not confront. Should the antitrust laws be modified to facilitate collaboration in the application and commercialization of innovation?

In my previous analysis of the proposed Sematech production consortium I concluded that the antitrust laws, properly interpreted, posed no significant obstacle to desirable production-enhancing collaboration. Thus, the argument for legislation must rest primarily on a concern that courts would not reach correct results or that businessmen would fear that they would not, and that as a result desirable transactions would be deterred. A similar concern was in fact the primary motivation for the 1984 National Cooperative Research Act, and the subsequent increase in R&D joint ventures is not inconsistent with the conclusion that such concerns may have had an inhibiting influence on R&D collaboration.

The Judiciary Committee in framing the issues for this hearing suggests the possible amendment of the 1984 R&D Act to

allow production consortiums that promote innovation. Assuming that there is a need for such legislation (and as yet I have not seen enough to be convinced), then the Committee's suggested approach of amending the 1984 Act and including within its terms only collaboration that promotes innovation has much to commend it, but it is also subject to one serious drawback.

The advantage of the Committee's suggested approach is that under the 1984 Act participants in a qualifying joint venture are not relieved from antitrust liability, but remain accountable for any actual antitrust damages that may result. Thus, the Act does not provide an inducement to violate the antitrust laws, as might arise from an exemption. A second advantage of the Committee's suggestion is that it limits the benefits of the damage reduction to collaboration that promotes innovation. If there is to be any further relaxing of antitrust strictures, the focus should most certainly be on innovation -- the single most important factor in increasing social wealth and productivity.

The 1984 R&D Act does not provide an appropriate model, however, in its notification procedure. Under the 1984 Act the benefits of statute become available on the filing of a simple notification with the antitrust enforcement agencies. While that is appropriate for an R&D consortium, which presents low antitrust risk, it is not suitable for a production consortium, where the antitrust risk is greater. Beyond notification, an inquiry procedure is necessary to assure that the projected collaboration is necessary to achieve the benefits sought. Stated most briefly, this would require a preliminary inquiry to establish a prima facie basis for the collaboration, followed by a more searching inquiry after the fact to assure that the contemplated benefits have been produced and that cartelization has been avoided. Such a method of before and after the fact scrutiny is presently employed by the antitrust authorities in West Germany in regulating joint ventures. Without these or similar controls a reduction in antitrust damage penalties would open the door to wide-spread subversion of antitrust goals. As Professor Harvey Brooks reminded Congress in his testimony on the

1984 R&D Act, too much cooperation at later stages of production as technology gets closer to the market, can become a conspiracy to share markets. See Hearings Before the House Committee on Science and Technology, 98th Cong. 1st Sess. 339-40 (1983)(Brooks).

VI. Strengthening Antitrust Enforcement to Promote Innovation

Innovation can be promoted by strengthening and stabilizing antitrust enforcement in appropriate areas. This is scarcely surprising since effective rivalry is a powerful spur to business effort. Indeed, as Judge Hand recognized in the Alcoa case in the absence of effective competition there is no objective yardstick by which to determine whether managers are performing effectively. Two important ways in which antitrust enforcement can be strengthened is to stabilize antitrust enforcement and to place renewed enforcement emphasis on preventing exclusionary practices that diminish productive efficiency and innovation.

A. Stable Antitrust Rules

Stable and predictive antitrust rules promote efficiency and technological progress by lowering investment risk of business transactions. Until 1981 there was an effective bipartisan consensus on antitrust policy that had existed during most of the post-war period. That consensus was shattered in 1981, leading to sudden and drastic change in antitrust doctrine, and prompting counter-reactions such as the Congressional resolution on resale price maintenance and the recent initiatives of the National Association of Attorneys General.

Sudden shifts in antitrust enforcement require abrupt changes in business strategy that raise costs. Thus, a suddenly more permissive merger policy stimulates precipitous mergers by firms concerned that the policy may not last. Plans made in one legal environment become outmoded and require costly readjustment in another legal environment. Thus, an important way in which

antitrust enforcement can be strengthened to promote productive efficiency is to return to the relative stability of the bipartisan consensus that has traditionally governed antitrust policy. This does not freeze the content of antitrust policy, but mandates that as far as possible change in basic antitrust doctrines should be gradual and evolutionary.

B. Preventing Exclusionary Practices

Exclusionary conduct, defined as deliberate action to raise the costs of rival firms, strikes at the heart of the competitive system because it frustrates a market test of the relative efficiency of the victim and aggressor firm. Yet public enforcement against exclusionary practices has atrophied in recent years. Enforcement instead has focused on short run price effects, neglecting the important goal of assuring that market participants are able to compete on the merits -- to show indeed that they have invented a better mousetrap.

Recent economic studies have shown that in radical innovation, small, high technology firms have outperformed larger firms. See F.M. Scherer, "Antitrust, Efficiency and Progress" (Unpublished working paper, 1987). Other students of innovation have also noted the importance of effective antitrust enforcement to prevent exclusion of innovative small firms and new market entrants. See J.Hollomon, Government and the Innovative Process in READINGS IN THE MANAGEMENT OF INNOVATION (M.Tushman & W. Moore, eds. 612,622 (1982). Thus, rather than neglect exclusionary practices, antitrust enforcement should strongly emphasize the prevention of such practices, especially when directed against innovative firms.[1]

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[1] A particularly vivid example of an innovation-reducing decision was a case in the Seventh Circuit where the court held that it was not an antitrust violation for a firm to gain a monopoly by misappropriating the patent of the true innovator. One monopoly was no different than another so far as consumers were concerned, the court reasoned, and so the antitrust laws were not violated. Brunswick Corp. v. Riegel Textile Corp., 752 F.2d 261 (7th Cir. 1984), cert. denied, 472 U.S.---(1985).

In fact, it matters greatly to our economic system that the reward to innovation not be taken away, and the production-enhancing purpose of the antitrust laws are well-served by condemning a monopoly that rests on fraud or exclusionary conduct.

Conclusion

Antitrust and trade competitiveness aspire to the same goal -- to assure the economic welfare of our society. While excessive antitrust enforcement can injure trade competitiveness by inhibiting beneficial collaborative effort between firms at technology frontiers, insufficient antitrust enforcement can also injure trade competitiveness by tolerating cartel accommodation in place of vigorous competition and by permitting exclusionary strategies that raise the costs of small, innovating firms. In answer to the specific questions posed by the Committee I would suggest:

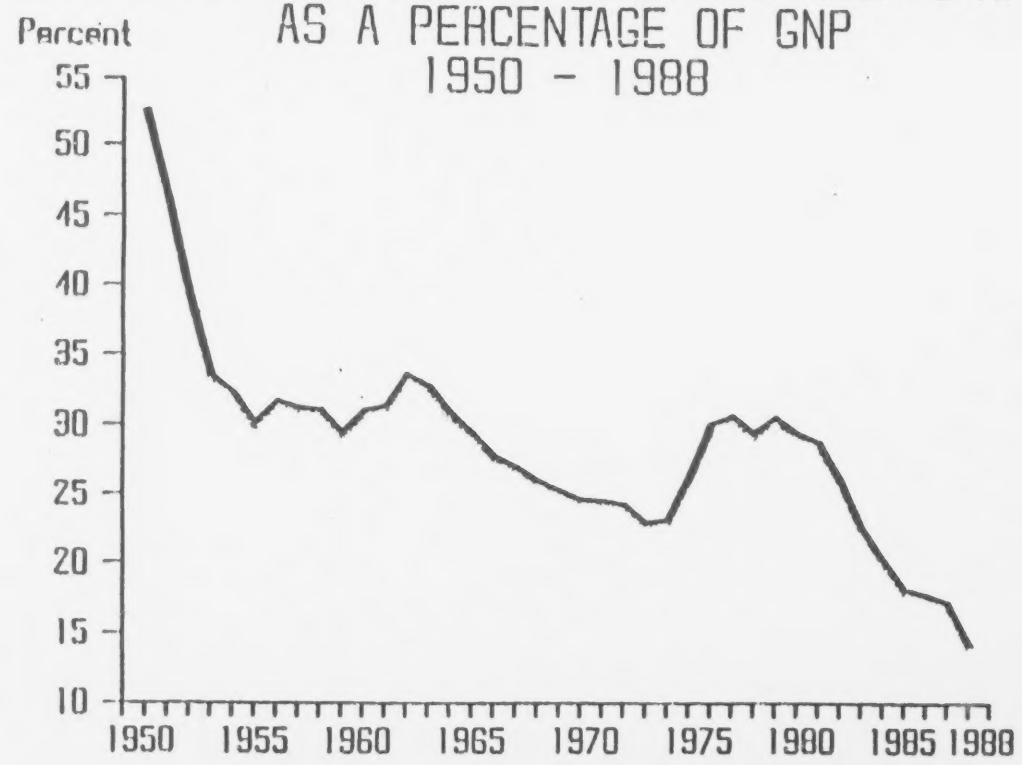
1. Current antitrust laws, properly interpreted, do not impede the ability of U.S. firms to engage in collaborative effort at technological frontiers. But courts, like all human agencies, may not always make correct decisions, and thus it is possible that business is deterred from some desirable collaborative efforts. The extent of any such deterrence in unclear, and the burden should be on the proponents of antitrust change to show that such deterrence has actually occurred.

2. There is no indication that mergers promoting beneficial innovation have been deterred. Therefore, the merger provisions of Section 7 of the Clayton Act should not be modified to enhance U.S. competitiveness.

3. If it is established that beneficial joint venture collaboration in production at technological frontiers has been prevented by antitrust concerns, consideration should be given to possible modification of the National Cooperative Research Act. However, the Act does not provide a sufficient screening mechanism for production collaboration, and would have to be augmented to provide for both before and after the fact scrutiny to assure that any such collaboration did not become a shield for cartelization. It is unnecessary to amend the antitrust laws to permit collaborative ventures to exclude foreign-owned firms since they can be excluded under present law if there is any valid business reason for doing so.

Exhibit 1

JUSTICE DEPARTMENT ANTITRUST DIVISION STAFFING AS A PERCENTAGE OF GNP 1950 - 1988



For each year, the percentage is calculated by dividing the number of Antitrust Division employees by the GNP (expressed in billions of 1982 dollars). GNP figures for 1987 and 1988 are estimates.

FTC AND DOJ MERGER ENFORCEMENT
1979 - 1986

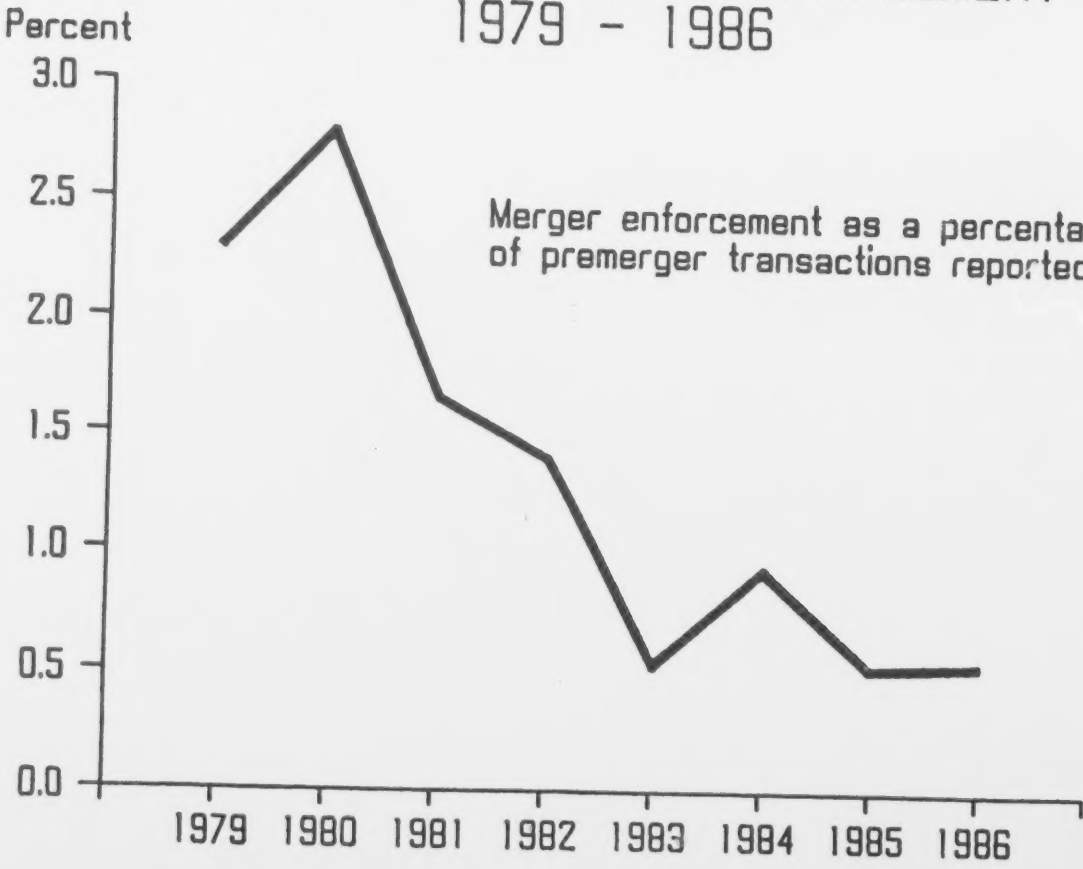


Exhibit 2

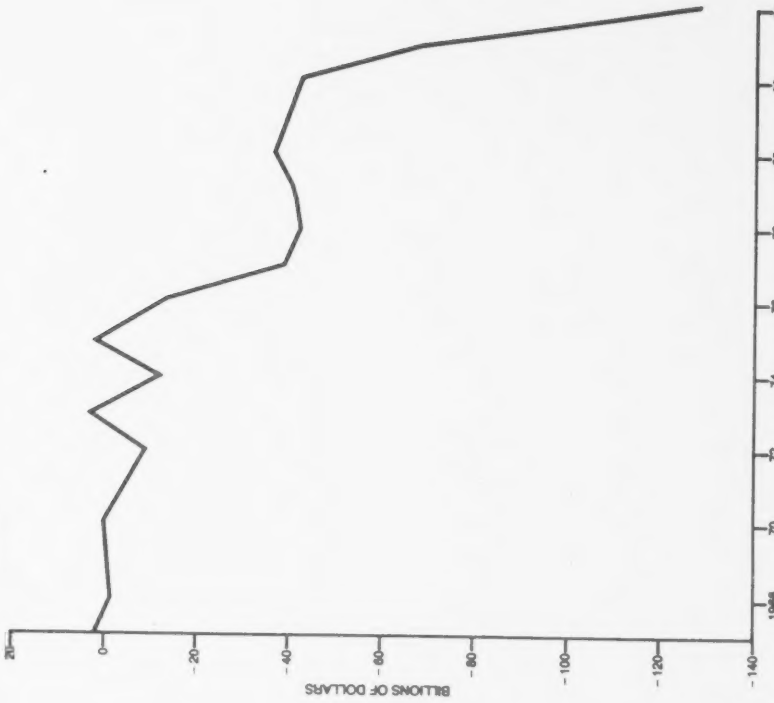
Table 1: Private Antitrust Cases Commenced

Compared with all Federal Civil Cases (1973-1983)

Fiscal Year	Private Antitrust Cases	All Civil Cases	Antitrust Cases as Percentage of All Civil Cases
1973	1,152	96,056	1.2%
1974	1,230	101,345	1.2
1975	1,375	115,098	1.2
1976	1,504	128,362	1.2
1977	1,611	128,889	1.2
1978	1,435	137,707	1.0
1979	1,234	153,552	0.8
1980	1,457	167,871	0.9
1981	1,292	179,803	0.7
1982	1,037	205,505	0.5
1983	1,192	241,159	0.5

Source: Georgetown Study of Private Antitrust Litigation

U.S. Merchandise Trade Balance, 1967-84
(Billions of U.S. Dollars)



Source: U.S. Department of Commerce, International Trade Administration, 1984.

Exhibit 4

The CHAIRMAN. Thank you very much.

Mr. Scalise, let me ask you a favor, an indulgence, and I will make you a deal, I will give you some more time. Senator Metzenbaum has a time problem and the fellow sitting to your right has a relationship with Senator Metzenbaum and he wants to hear him before he leaves.

Mr. Porter, if you do not mind, I will ask Mr. Porter to go next. There is a possibility that Mr. Porter may be putting in Ohio this year—I am only kidding about it.

Senator METZENBAUM. Before Professor Porter speaks, would you be good enough to give us a report on the condition of your wife and when the baby is due?

Mr. PORTER. Well, Senator Metzenbaum and Mr. Chairman, it would be a pleasure to give you such a report. My wife is fine and the baby is due in about a month.

Senator METZENBAUM. Great.

Mr. PORTER. Mr. Chairman, I want to say, however, that——

The CHAIRMAN. You might guess, they have a relationship. [Laughter.]

Mr. PORTER. My wife is the sister of Senator Metzenbaum's daughter's husband, so it is a relationship one step removed. I am unfortunately not a citizen of the State of Ohio but a citizen of the State of Massachusetts, but I have become an increasingly frequent visitor to Ohio and have enjoyed every minute of it.

Mr. Scalise, thank you for yielding the floor.

Senator METZENBAUM. Thank you, Mr. Scalise.

Mr. PORTER. Mr. Chairman, I appreciate the opportunity to provide testimony to this committee on the subject of antitrust policy and some of the specific matters that we have been discussing.

I have prepared an extensive statement which I would hope would be entered into the record.

The CHAIRMAN. I should say for the record that all of your statements will be entered in the record in full.

Mr. PORTER. Thank you.

What I would like to do in the few minutes I have this morning is to try to summarize some of the major points that I would like to get across in these hearings.

I agree with the two panelists that have come before me in their conclusions. I believe there is no need to modify the antitrust laws in either the area of mergers or the area of cooperative research. However, and my testimony this morning will perhaps not take the perspective of looking specifically at Sematech as have the two previous panelists. I would like to take a somewhat broader perspective.

That broader perspective grows out of my work at Harvard Business School as a professor who has written and studied competition for the last 15 years. I have served on the Young Commission, the President's Commission on Industrial Competitiveness, where I was the chairman of the so-called Strategy Committee charged with coming up with the overall framework for the Commission report. I have been a strategic adviser to companies all over the world. Finally, I have spent the last year studying the 120 or so most competitive industries in the 10 leading countries in the world. I have been looking at Swiss banking, Swiss chocolate, German cars,

German chemicals, Swedish trucks, Swedish mining equipment, and so on. I have been trying to understand why nations win in particular industries.

The CHAIRMAN. Of the 120 leading industries, how many were in the United States?

Mr. PORTER. There are quite a few of them, Senator, and we can come back to that in a minute.

The CHAIRMAN. All right.

Mr. PORTER. This experience and this background has led me to some rather strong conclusions about the subjects before this committee. I must say that these conclusions are ones that 5, 6, or 7 years ago I might not have been able to voice quite so strongly, but my experience has made my convictions ever more strongly felt.

I would like to speak this morning briefly about four areas. First, I would like to talk about the link between antitrust and competitiveness. A lot of the debate on antitrust now is being framed in terms of the overall debate on U.S. competitiveness. I would like to comment on that, given my background and research.

Second, I would like to talk about the area of policy toward mergers and whether we do indeed need to relax merger standards, given the evidence of American industry over the last decade or so in this area.

Third, I would like to talk about cooperative research, and whether cooperative research is a vital element of U.S. competitiveness as has been alleged, and also whether there is any need to modify the beginning we have already made in legitimizing cooperative research.

And finally, at the risk of going somewhat out of bounds, I would like to comment on another linkage which I think is perhaps the most important linkage of all in the area of this committee's interest, the link between trade law reform and antitrust. I think this is the greatest potential impact on antitrust and competition link has all, and we need to give it much consideration.

Let me talk briefly about each of those four subjects. There is indeed a growing tendency to link antitrust and competitiveness, to use the competitiveness problems facing the Nation to justify changes in antitrust laws. Politically, as I argue in my testimony, this is a marriage made in heaven.

From an economic perspective, and from the perspective of somebody who works with companies in the area of competition, I can find little, if any, connection between antitrust and competitiveness. I can find little connection between the U.S. laws and the success of U.S. companies in any important respect. I can find little connection in all these industries that I have been studying abroad between their antitrust laws and their succeess.

I can imagine circumstances where antitrust policy may have made things a little more uncomfortable, a little more difficult, for U.S. companies. But I would rank it far down on the list of priorities, not one of the top things.

The most internationally competitive industries in the world are the industries where there is intense domestic competition—the German car industry, the German chemical industry, the Japanese consumer electronic industry, the Japanese robotics industry. Those are industries populated by dozens and dozens of companies

who engage fierce rivalry. They do not collaborate. They do not cooperate in any but the most distant sense of that word. They are in intense rivalry and that does not harm competitiveness, it is that has been the key to competitiveness.

The greatest U.S. success stories have tended to be and still are those industries where there is a number of strong vigorous domestic competitors fighting it out. They are not here in front of this committee. They are not in Washington these days. The medical equipment area, the aircraft area, computers, software, a variety of other industries where we are strong, have intense domestic competition.

The CHAIRMAN. The aircraft industry fairly frequently, with increasing frequency.

Mr. PORTER. I understand that, and certainly there is a threat in Europe which we can discuss in the questioning.

If we add up all the factors that are affecting U.S. competitiveness and try to weigh where antitrust fits in, I would personally rank it way, down on the list. I could not find a single foreign executive in private meetings with me who said "antitrust" in any interview trying to explain why his company was succeeding and we were not doing so well. The answers were more in areas like innovation and education; they were in more fundamental things, not antitrust policy.

There has already been a significant relaxation of merger enforcement in the United States in the past 6 years. The guidelines have been changed and, more significantly, fewer mergers have even been examined.

There is a view that all mergers lead to economic efficiency. As one who has spent his career working with companies recommending mergers and trying to implement mergers, I can tell you that I believe that this is not true.

The most competitive industries in all the major countries are not the industries where there are a few firms, but where there are many firms. There are seven Japanese car companies. There are dozens of competitors in most of the most competitive industries in each nation in the world.

There is no evidence that merging firms in the industry together produces stronger companies that win against foreign competition. That is a discredited theory; the so-called "national champion" theory.

Instead of promoting economic efficiency, many mergers do not succeed. A study I recently published showed that over 50 percent of all the mergers made by a large sample of U.S. companies over the last 30 years were divested.

The CHAIRMAN. Say that again.

Mr. PORTER. Over 50 percent of all the mergers made by a large sample of big U.S. companies in the last 30 years were divested, often within 5 years. Many mergers fail because it is hard to implement the efficiencies and because the mergers often do not promote the kind of economies of scale that they are supposed to.

In fact, the trend in technology is not toward economies of scale, but against economies of scale. The trend in technologies is not toward more vertical integration and bigger companies, it is toward de-integration and letting outside suppliers do more.

I think the whole notion that merging into a few big firms allows U.S. companies to compete successfully abroad flies in the face of both foreign evidence as well as logic. There were excesses in merger enforcement in the past years, and the merger guidelines needed to be rewritten. I do believe that the merger guidelines had to be modified to allow for foreign competition as a relevant consideration. That has been done. But now we have, as seems inevitable in these areas, gone too far. If anything, we need to be a little tougher on mergers these days to promote U.S. competitiveness, rather than easier.

In the area of cooperative research, an act was passed in 1984 that significantly affected the outlook towards cooperative research in the antitrust laws. However, there is a continuing sense that this is not enough, that cooperative research is more important than this and we should go further. This view is based almost exclusively on interpretation of the Japanese case.

The view is that cooperative research has been fundamental to Japanese success in R&D. I believe this is a flawed view. The innovation literature suggests that small and medium size firms are the engines of innovation, not large firms. The notion of pooling R&D among leaders to get more innovation to me is not consistent with the economic evidence.

The significance of cooperative R&D in Japan has been vastly overstated. My research and my consulting in Japan lead me to believe that Japanese companies often do not put their best people in these projects, that they often spend ten times more outside the project than they do in the project, that they have to participate for political reasons, given the society, but that the greatest benefit of these projects is much more symbolic than it is real. The projects champion new technology and push the companies to work on these things, but it is not the cooperative research itself that comes out of these that is the real success.

The real Japanese success is not the cooperative research, as much as it is the rapid commercialization of the technology. That is fiercely private. Japanese firms do not cooperate on that dimension one single bit, and they are very fast at it and very vigorous in their competition to commercialize.

Cooperative research is not practiced to any significant degree in any other major industrial country except Japan. I could not find a single industry in my sample where there was much cooperative research going on. If it is only Japan, then could this be the fundamental solution? My answer is no.

Finally, the U.S. experiments in cooperative research have been mixed because I think it is very hard to manage cooperative research and firms have mixed motives about participating. I believe that the Cooperative Research Act of 1984 is fine, and it probably will not cause much harm, but we should not get our hopes up that it is going to provide a big impact. Nor is there a need to go any further.

Specifically, in the area of application and commercialization of technology, there is almost no economic logic for cooperation. In those areas, economies of scale are much less. In those areas, competition seems to me to be the best way to promote innovation.

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In the case of the U.S. semiconductor industry proposal, Sematech, if it were exclusively oriented towards research, I think it would fall under the 1984 act. To the extent that it gets into production, I have two problems. First, I do not understand how a cooperative effort is going to solve a company's production problems. As I understand production, it is something that each company has to master for itself on a nitty-gritty basis in its own plants, with their own workers. I do not understand how cooperative efforts are going to be particularly effective.

Second, I believe that a joint production venture to me raises competitive questions, and I do not see the countervailing benefits nearly so strongly.

Finally, and very briefly, I would like to say the biggest threat to competition that I see in America today is not in merger policy, cooperative research or anything else we have been talking about so far. It is the recent proposals to reform the tradeoffs. It is the proposals that are going to legitimize bilateral agreements among nations, that are going to proliferate more machine tool deals and auto deals. It is negotiating trade problems through cutting agreements which divide up markets. And I think if we get into the habit of solving trade problems that way——

The CHAIRMAN. What specific legislative initiatives are you talking about that will—

Mr. PORTER. Well, there are a number of bills in front of Senator Glenn's committee, for example, one of which talks about making specific agreements in telecommunications. I cannot remember all the other industries that were mentioned. I do not remember who the author is of that bill.

The CHAIRMAN. No, I did not mean to—I just wanted to——

Mr. PORTER. The Gephardt amendment, for example, says that, unless there is certain market improvement, we have to inflict some kind of penalty. The natural consequence of that, Senator, will be to cut more deals, to negotiate down the share of U.S. market by Japanese companies and raise the share of U.S. firms in Japan. I think that is the natural, politically realistic outcome of that chain of logic.

My view is that those kind of deals are not good for competition and that there are better and more effective ways of solving trade problems than these. That is a broader subject for this committee, but I believe very strongly that this committee ought to be concerned about the competitive consequences of that approach. Whether hearings are appropriate or some other forum is appropriate, I urge all of you to give that area serious consideration.

The semiconductor industry has made some legitimate efforts to solve its own problems. Members of the semiconductor industry were prominent members of the President's commission that I served on. The semiconductor industry is getting a great deal of assistance from government already, in the trade agreement that was forged by this administration, from the Defense Department and in other areas. Stock prices of U.S. semiconductor firms have been booming in the United States, and I think there is every reason to think that the industry can solve its own problems.

If the semiconductor industry is asking for yet more help, it is starting to strain credibility in my judgment.

Thank you.
[The prepared statement of Mr. Porter follows:]

Statement of Professor Michael E. Porter
to the Senate Judiciary Committee
on Antitrust Policy and Economic Competitiveness
May 7, 1987

Mr. Chairman, it is a privilege to have the opportunity to testify before this Committee on the subject of antitrust policy. The past six years have witnessed major changes in philosophy towards antitrust policy as well as the way it is enforced. A number of proposed modifications of the antitrust laws are outstanding before this Committee, notably in the areas of mergers and cooperative research. Even more significant, however, is the growing tendency to link antitrust policy with American competitiveness. This link has become a major motive force behind antitrust reform. Most significant of all, in my judgment, is the hidden impact that current directions in trade policy are likely to have on the health of competition in U.S. industry. While trade law reform and antitrust have yet to be connected in the popular consciousness, the relationship between the two may be the most significant de facto change in antitrust policy of all.

I come before the Committee not as a member of the antitrust bar but as one who has spent his professional career teaching and writing at the Harvard Business School on the subject of competition and competitive strategy. I have also had the opportunity to advise many dozens of companies on problems of competitive strategy, both U.S. companies as well as leading firms in Europe and Japan. More recently, I served on the President's Commission on Industrial Competitiveness, where I chaired the Strategy Committee charged with developing an overall framework for the Commission's work. For the

last eighteen months, I have been conducting a full-time study of the most internationally competitive industries in ten leading industrialized nations, including the U.S., Germany, Japan and Korea. I have had the opportunity to witness personally, and often to be involved in, competition on the firing line.

My experience and study have led me to the conclusion that there is no need for any further modifications in the nation's antitrust laws in the areas of mergers or cooperative research. I believe that the benefits to be gained from the proposed changes are overstated and that the proposals grow out of faulty diagnoses of the problems they seek to address. Changing the law in these areas will undermine rather than benefit American industry.

Going further, we face a grave danger of misreading the linkage between antitrust and competitiveness. If anything, we have gone too far in relaxing the enforcement of our antitrust laws from the standpoint of competitiveness. Recent approaches to dealing with trade problems, and especially recent proposals for trade law reform, represent a serious threat to the very health of our competitive system. They are not in the interest of the nation or, ironically, of the parts of the business community that are supporting them.

Antitrust and Competitiveness

There is a growing tendency to link antitrust policy to competitiveness, and to use the competitiveness problem facing the U.S. as a lever to spur antitrust reform. Politically, the link between antitrust and competitiveness is a marriage made in heaven. It represents an opportunity for proponents of relaxation of

antitrust standards to consolidate their gains in enforcement and to modify the laws themselves.

As one who has spent a great deal of time studying U.S. competitiveness as well as working with companies on competitive strategy, I can find little if any connection between antitrust policy and competitiveness. There is little evidence that U.S. antitrust laws have had a significant impact on the ability of U.S. firms to compete effectively. Conversely, I can find no evidence that firms from other nations benefitted significantly in international competition from "weaker" antitrust laws at home.

The most internationally competitive industries in the major industrialized nations are almost invariably those where there is intense domestic competition. German chemicals, automobiles, machinery, Japanese automobiles, consumer electronics, cameras, robotics, Koreans automobiles, textiles and TV sets, Swiss pharmaceuticals and textile machinery are just a few of hundreds of examples. The greatest U.S. success stories are invariably industries with a number of competitors involved in aggressive rivalry -- medical equipment, commercial aircraft, computers, software and consumer services are a few of many examples. Intense domestic competition breeds success abroad.

International competitiveness comes not from consolidation or collaboration at home but from <u>strong</u> domestic rivalry. Industries where foreign antitrust policies have been lenient are typically the uncompetitive, inefficient sectors where political considerations have taken over. Lenient foreign antitrust policies have not been a cure to such industries' problems but a stage in decline.

Relaxation of Merger Standards

There has been a significant relaxation in the enforcement of antitrust restraints on mergers, particularly horizontal mergers. Under the new merger guidelines, far fewer mergers are even examined and fewer still have been challenged. A number of proposals seek to modify the language of the Clayton Act to raise the odds that the current philosophy towards enforcement is made permanent.

The stated logic behind these moves is that mergers promote economic efficiency. What is more, it is argued, in increasingly global markets domestic market share is not relevant. Domestic competitors should be allowed to merge in order to strengthen themselves against tough international competitors, goes this train of thought. Here then, we see the effort to link antitrust and competitiveness.

There is no need whatsoever to modify the antitrust laws regarding mergers. The arguments supporting such a modification are flawed in many respects:

- o The most competitive industries in the major nations have many competitors and not a few. There is no indication in practice that merging into one or two domestic competitors is associated with international competitiveness -- quite the contrary. The presence of seven major Japanese auto companies, dozens of Japanese consumer electronics and robotics companies, six major Japanese copier companies, and five major Japanese camera companies are just a few of many examples which cast serious doubt about the need for U.S. firms, with the world's largest home market, to merge in

order to be large enough to compete with foreign firms. The "national champion" theory has been thoroughly discredited.

- o Many mergers fail or the performance of the merged firms declines rather than improves after the merger. The efficiency benefits of mergers are elusive and are often not achieved. The view that most mergers promote economic efficiency, advanced by some economists and adopted by this Administration, is simply not true in practice.
- o Lessening of domestic rivalry via mergers often slows the rate of innovation. While some mergers may lead to short-term efficiencies, these are greatly outweighed by the company's rate of innovation as a determinant of international competitiveness.

  Though mergers can result in short-term cost savings and stabilize industry pricing, they often distract and delude managements from making truly significant changes that are necessary for sustained success.
- o Modern technology is making economies of scale less and not more important in many areas, contrary to the view that large size is needed for efficiency.

In my judgment, the relaxation of antitrust enforcement towards mergers has already gone too far. There were excesses in merger enforcement in previous Administrations, and the merger guidelines needed rewriting. Foreign competition needed to be included in the guidelines explicitly.

However, what started as a move in the right direction has become bad policy. The current Administration has adopted a de facto

policy of "anything goes". The result has been a flood of horizontal mergers with questionable impact on competition, involving the combination of major competitors. In the airline industry, for example, I feel a strong sense of disquiet.

Some in the business community are all too eager to take advantage of this open season on horizontal mergers. After all, it is easier to buy competitors than to beat them. However, beating competitors through superior quality, productivity, and innovativeness is much better for the nation and indeed for companies themselves in the long run. My experience in studying competition and working with companies provides a strong conviction that the merger route is not the way in which internationally competitive companies are built. My experience has been that the best managed companies understand this; it is the weaker and less innovative companies that see mergers as a magic solution to their problems. I believe that many mergers are distracting American industry more than they are helping it.

The merger guidelines currently in force need reinvestigation. Industry leaders should not be encouraged to merge with competitors, no matter how small. More importantly, however, the Justice Department and FTC must get back in the business of challenging mergers with questionable impact on competition.

Cooperative Research

The R&D Cooperative Research Act of 1984 provides explicit standards for evaluating cooperative R&D among companies with the intent of encouraging more cooperative research ventures. This

Committee is considering a proposal which would relax potential restrictions on cooperative R&D ventures even further.

The interest in cooperative research has grown largely out of observation of the Japanese experience. Observers have given cooperative research ventures prominent treatment as a reason for Japan's competitive success. It is argued that it is wasteful and inefficient for firms to duplicate research efforts, which is why U.S. firms have been out innovated by the Japanese.

The premises underlying the rush towards cooperative research are flawed:

- o Evidence accumulating in the literature over decades shows that large size does not promote innovation. The most innovative firms are usually small firms, often outsiders and not the traditional competitors in an industry. This evidence casts strong doubts about the benefits of pooling R&D among industry leaders.
- o The significance of cooperative R&D in Japan has been vastly overstated. Japanese companies do not assign their best people to cooperative ventures, and routinely spend ten times more on their own private research than they contribute to the cooperative venture. Participation by companies in MITI-sponsored cooperative R&D projects is required for political reasons, and participation is frequently grudging. The results of many projects are questionable. The greatest benefit of the projects has been to call attention to important technologies -- a more symbolic function -- rather than the technology that has come out of them.

The real Japanese success is in rapid commercialization of innovation rather than fundamental innovation itself. Commercialization has been fiercely proprietary to each Japanese firm. Perhaps the most important reason for rapid commercialization and subsequent product and process improvement has been the intense domestic rivalry among the many Japanese competitors in most industries. U.S. firms, conversely, have been slow to market and slow to change.

- o Cooperative research is not practiced to any significant degree in most highly successful industrialized nations, notably Germany, Switzerland and Sweden. This illustrates the risk of bilateral comparisons of two countries in seeking solutions to bolster U.S. competitiveness. That we do not see cooperative research prominent in other countries should cast strong doubts about its significance as a fundamental determinant of international success.
- o The results of the U.S. experiments in cooperative research have been mixed, for perfectly logical reasons. Companies do not want to give up their proprietary expertise or their best personnel to benefit their competitors. The hoped-for efficiencies of cooperative research are rarely achieved in practice given the organizational complexities of managing joint projects and the mixed motives of participants.

There is little need, in my judgment, to amend the Cooperative Research Act of 1984. The Act as it is currently written is probably harmless, though a possible distraction. We should not get our hopes

up that the wide range of ventures now permitted will make much of a difference.

Extending the Act to cover joint application and commercialization of research is just plain bad policy. Application and commercialization is not subject to even the questionable economies of scale that more basic research is, and allowing cooperation will serve no purpose but to undermine competition and probably slow down the rate of innovation.

The U.S. semiconductor industry, as part of a broad trade and competitiveness initiative, is supporting the need for cooperative research. My personal view is that the problems of the U.S. semiconductor industry do not stem from failure to develop innovative products but from poor manufacturing productivity, inadequate quality, and stop-and-start investment.

A recent proposal would contemplate a major cooperative venture in manufacturing technology. I have misgivings about whether a joint project will be effective in this area. The nitty gritty of improving manufacturing productivity is inevitably a process that each firm must master for itself. It is hard to see how a cumbersome group effort will make a big difference. Any research on underlying manufacturing technology would be better placed in a cooperative university-industry project.

Trade Policy and the Health of Competition

Of probably greater significance to competition than any of the proposals to modify antitrust laws are the developments of the last several years in the arena of trade. In particular, this

Administration has fallen into a pattern of dealing with trade friction by negotiating a series of orderly marketing agreements covering particular industries, among them automobiles, machine tools and semiconductors. More recently, a number of proposals have been advanced (and some passed by the House) which set forces in motion that would proliferate such agreements even further.

This approach to dealing with trade problems threatens to the core the health of our competitive system. Whatever euphemisms we use, such agreements are cartels which allocate market shares and undermine competition. They prop up prices and reduce the pressure to improve quality and service. And, ironically, they give our foreign competitors the incentives to move upscale or into higher technology goods and attack areas of U.S. advantage, as has been the case in TV sets, automobiles and other industries.

Once again, competitiveness is being used as a false argument for taking actions which will undermine the competitive strength of America. Unfair trade practices account for only a small part of the U.S. trade deficit. Basing our solutions to the competitiveness problems on unfair trade practices will simply not work. The result of such an approach will be higher prices for consumers, damage to other U.S. industries who rely on the affected goods as inputs, and a blunting of competition in the affected industries.

I urge this Committee to consider hearings on the competitive effects of the existing trade agreements in addition to the competitive impact of current proposals for trade law reform. I also urge members of this Committee to soundly reject trade law reform

that legitimizes bilateral agreements or encourages negotiated division of markets.

A Misguided Assault on Competition

The effect of many of the developments I have described in my testimony is an unwitting assault on competition in America. The irony is that many of the proposals are being couched as pro-competitive when their impact is the opposite. Some Democrats and some Republicans have forged an unprecedented and I believe unholy alliance to propose such policies, often coming from very different perspectives on the underlying issues.

It is time we recognized these proposals for what they are. Seen in the proper light rather than surrounded in the haze of the competitiveness debate, it is hard to believe that either Democrats or Republicans will be comfortable.

This Administration says it believes in competition. Let it prove this by forgetting these proposals and demonstrating a commitment to antitrust enforcement. Democrats have long said they are believers in competition and in strong antitrust laws. Let us see them prove it by rejecting special interest pressures to divide up markets. Finally, the leadership of the business community must stand up and make clear its support for competition. If it lets the weak and desperate companies shape this nation's policies, American industry will wake up to find its opportunities lost and its positions weakened.

The economic success that America has achieved has depended on the vigorous competition that has been the trademark of American

industry. The areas where we are still strong are [illegible] illustrations of the power of competition. If we retreat on this principle to deal with the problems of the moment, we will guarantee that true real solutions will be a long time coming.

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The CHAIRMAN. Thank you very much.

Mr. Scalise, the last shall be first. You take all the time you need.

Mr. SCALISE. Thank you, Mr. Chairman.

I am George Scalise, Senior Vice President of Advanced Micro Devices and Chairman of the Public Policy Committee of the Semiconductor Industry Association, and have been a part of this industry for nearly 29 years now, serving in engineering, manufacturing, international trade, and a variety of other capacities.

It is an industry that has been characterized as very competitive, and is on the leading edge of technology. It is the foundation for all of what will take place in the electronics world in the future, whether it is consumer products or computers or telecommunications or defense products, so it is fundamental, it is important.

A substantial portion of our sales have always taken place in foreign markets, and I think it is an industry that has always ventured out, whether it is in new technology or into markets. It has always been at the forefront of the opportunities that lay ahead.

It is an entrepreneurial industry and again, as has been discussed here, most of the innovations that have come along have resulted from the entrepreneurial efforts of a few folks that ban together, form a company, and get something going. But it is not to the exclusion of other companies, the larger ones that have also demonstrated entrepreneurial capability as time has gone on.

So the foundation of being technologically advanced, entrepreneurial, and dealing in world markets, all of that has been fundamental to the industry. The question really is one now of how do you deal in this new world that we are involved with. Things have changed dramatically here in the last perhaps 7 years.

As I go back prior to 1980 which the Japanese had not yet become an important factor in the market, you could look at the chain of events that took place and see that first and foremost the industry was very competitive. History will show that prices have come down on average 30 percent per year, good times and bad. The highest inflation years of the 1970's. Prices always came down in semiconductors. The consumer always got greater value for less cost each and every year. Perhaps the hand-held calculator is one of the great examples where it started out at $200 back in the early seventies and you buy it for, what $5 today, with perhaps 5 to 10 times the capability. At that time it was a four-function machine, and now it is a multifunction machine.

So the thing that we are dealing with here is how do we now compete in this new environment, what is really different. The thing that is different is we are now competing with Japanese firms primarily. There are some European, but primarily we are talking about Japanese firms that are vertically integrated, that have had the advantages from cooperative efforts, and I think that for those who would look back at some of those programs they will find that their antimonopoly laws were set aside so that they could get together on some of these major programs that moved their technology forward.

Now, that is not the only issue because, as we are talking here, we know that the trade agreement deals with another part of this problem, and I do not think we need to get into that today, but I do

think that when we look at the entire semiconductor issue and the problem we are trying to solve today—and I will get to Sematech in a minute—there is a thread that binds the whole thing together and antitrust is only one part of the issue and how it relates to a Sematech program.

I think what is important about this is that we have to find a way now to compete with the Japanese with the resources that are available, while at the same time enhancing this innovative capability that has been the hallmark of the industry, and that is really what we are focused on.

If we can have the opportunity—and I think that the 1984 law certainly enhances this—to go forward with joint R&D efforts, it certainly avoids duplication of R&D funding, and that is really important because some of these projects are very, very expensive, and for any one company to try and take them on they are either going to under-fund them and therefore never reach the result, or it will take so long that those who have had better and more concentrated funding are going to get there first, the commercialization issue that was talked about here.

So this idea of pooling resources in the R&D arena I think is fundamental to our success in the future. Our focus here today is on the question of how can we enhance the international competitiveness of American industry while obtaining greater gains from these common efforts.

Strengthening the industry in world markets is really the issue that we are going to have to deal with. Explicit or de facto exemptions from national competition laws, that is not what we are looking for. What we are looking for is a program that has all of the opportunity to compete but at the same time utilizes resources more effectively. What I would like to do now is go on to the Sematech proposal, because it has been discussed here and maybe I can clarify just what Sematech is all about.

The primary objective of Sematech is to do the R&D needed to develop future generations of semiconductor processes, materials, tools, and test equipment and to transfer that knowledge to domestic industry. Sematech's emphasis will be on manufacturing capability, and I think that is an important term, manufacturing capability, the joint approach entailed by Sematech with the industry sharing in the results will not only foster more efficient use of R&D dollars, but will result in the wider dissemination of the state of the art manufacturing technology throughout the industry.

It is hoped this initiative will help to insure that future competitiveness of the domestic semiconductor industry by developing a strong supportive relationship with U.S. equipment and material industries.

There are going to be three basic elements to Sematech, and I do not want to go into them in detail, but one of them has to do with basic research, another would take that basic research and develop the tools that would be needed to produce parts, and the third would be the software associated with those tools that would allow flexible manufacturing.

Incidentally, there was discussion about the vehicle that would be used to work through this process. As opposed to a D–RAM or some other particular device, it has not been determined what we

would use as a vehicle yet. What will be important though is that it is a robust state of the art vehicle that will test the frontiers of the technology. It does not have to be a specific product. There is no intention of producing a product for sale by the organization.

It will not produce products for commercial use. The product will be technology in manufacturing skill which participants can apply to their own needs. Sematech will be structured so that small companies as well as large ones can participate and share in Sematech technology. The technology will be available to non-participants under licensing arrangements. The industry hopes to enlist the broadest possible base of financial support to include the government, device makers, material suppliers, equipment manufacturers, and end users as appropriate.

Now, we believe that Sematech will be fully consistent with U.S. antitrust laws and the policies which underlie those laws. The objective is to be pro-competitive, to insure that U.S. firms remain in the market from which they might otherwise withdraw. These firms will compete not only with each other in the production and sale of semiconductors, but with a large and growing number of foreign rivals. Joint R&D in manufacturing will yield synergies which will reduce the R&D costs of the participants, permitting smaller firms to remain viable competitors.

One could therefore argue that no change in existing laws are required to permit a venture such as Sematech to proceed. Now, I think this is a key point. Sematech, on the assumption that it does its job, is going to provide an opportunity for the small entrepreneurial innovative company to have a shot at producing the products they design as opposed to having insufficient funds needed to develop the production equipment and thus having to license someone else to make what they have designed. We see many, many instances today of that being the case. These companies, come up with some great ideas, some great products, they run out of money, they cannot develop the tooling, they do not have a foundry that can support them, and they sell this technology at what appears to be almost bargain basement prices.

The CHAIRMAN. Why do American companies not buy it?

Mr. SCALISE. Pardon?

The CHAIRMAN. Why do American companies not buy this technology?

Mr. SCALISE. Well, in many cases they have. In other instances they are developing the same technology and the foreign competitor may be willing to pay more for it, since they have not yet that particular product or process so there are a variety of reasons, but some of it does go domestically.

The CHAIRMAN. OK. Thank you.

Mr. SCALISE. There are a lot of cross-licensing arrangements within the industry, technology for technology, product for product, to enhance the capability of all the companies and enhance the competitiveness.

While I hold the view that Sematech is consistent with U.S. antitrust law and policy, I would not rule out the desirability from our perspective of modifications to the Cooperative Research Act. Given the current structure and the objectives of Sematech, I believe that recovery of even single damages by any plaintiff would be unlikely.

However, private actions for damages may be filed. There is no way we can prevent that, and we will not know for certain whether such an action will fail until the day the court renders Judgment. That fact creates a substantial business risk for participants and may chill participation in the consortium. These firms are being asked to make a substantial investment in both funding and commitment of key personnel to this project, and the prospect that a Federal court might find the venture illegal is a potential deterrent. This risk factor may be reduced through an amendment to the act.

Now, I was one of the original participants in the Microelectronics & Computer Technology Corporation, MCC, and I have been on the board since its inception. I know as we went through that process—and, again, that is a step further back in the chain of research and development—there was this chilling effect on the part of many of the companies. As we talked our way through the program they were concerned with committing to participate until they knew just what the status was with regard to antitrust, but nonetheless we still went forward. We took the chance and we worked our way through that process and after a year or so we got our letter of clearance and we also had the good fortune to have you and others support us on the modifications of the antitrust law in 1984, and that helped as well.

That has been a very successful venture and, as one who has participated in funding it, I would say that it has been able to attract the necessary people, both from within the companies and non-participating companies, because of its leading edge in research and development, it has met and in many cases exceeded the expectations of the participants. We are pleased with the results of MCC and we think it is important that that process, that idea be fostered, because many of these tasks are just far too large, far too expensive and far too risky for any one company to take on.

In conclusion I believe the industry continues to maintain its competitive posture as the most innovative industry in the world. We can compete with anyone in terms of defining, designing and bringing products to the marketplace. What we need to do now is develop the capability so we can produce those products at competitive costs and quality so we can take advantage of this innovative capability, and that is what Sematech is all about.

Thank you.

[The prepared statement of Mr. Scalise follows:]

TESTIMONY OF GEORGE SCALISE

On Behalf of the

SEMICONDUCTOR INDUSTRY ASSOCIATION

Mr. Chairman, I am George Scalise, Senior Vice President of Advanced Micro Devices (AMD). I serve as the Chairman of the Public Policy Committee of the Semiconductor Industry Association (SIA), which represents over 50 U.S.-based merchant and captive producers of semiconductors accounting for over 90 percent of U.S.-based semiconductor production. I appreciate the opportunity to appear before you today.

The industry which I represent is an excellent example of a U.S. industry at the "technological frontier." Semiconductor chips underlie the information revolution which is transforming virtually every aspect of human economic endeavor from traditional manufacturing to agriculture and services. Technological advances in this industry have been extraordinarily rapid, and have permitted our industry to provide consumers with devices with progressively greater functionality at a steadily declining cost. The manufacture of semiconductors is perhaps the most complex industrial process ever undertaken.

Our industry is also intensely engaged in international competition. A substantial percentage of our total sales revenue has always been achieved through foreign sales, and we have established manufacturing, design and sales subsidiaries in many countries in order to effectively serve the global market. The market in which we compete is the world market.

Our principal international rivals are Japanese firms, with whom we compete all over the world. Until very recently we led Japan in virtually every area of semiconductor technology, and we still outsell Japanese firms in every part of the world outside of Japan itself. However, in

1986, for the first time, Japanese firms captured a larger share of the world semiconductor market than our own industry. This reflects, in part, the weakening of the dollar against the yen and the growth of the Japanese market, which is now the largest market for semiconductors in the world, and which is dominated by Japanese firms. Nevertheless, there is no question that the Japanese industry has made dramatic gains relative to our industry during the past five years. We have lost significant market share to Japan in the high volume commodity memory product areas -- the "technology drivers" which provide the basis for enhanced competitiveness in virtually all semiconductor product areas. The Japanese industry is gaining on us technologically, and is reportedly ahead in some areas, such as optoelectronics. These developments have compelled us to assess, on an urgent basis, what our industry needs to do in order to remain internationally competitive.

Competition and Cooperation

As you may know the U.S. semiconductor industry has an extraordinarily entrepreneurial, individualistic tradition. There are many small firms in our industry, and reflecting the intensity of competition, we have had a high level of both entry of new firms and exit of unsuccessful firms. Prior to the 1980s we had little inclination to undertake cooperative efforts of any kind.

Our Japanese competitors, by contrast, consist principally of seven large, vertically integrated electronics firms which produce not only semiconductors, but a wide range of electronics products incorporating semiconductors. Each of these firms in turn belongs to a still larger industrial group known as a keiretsu, which are bound together by a web of financial, personal and traditional ties and headed by a major bank. This industrial structure gives the Japanese producers enormous financial resources and staying power.

While the Japanese electronics firms compete vigorously

among themselves for market share, they also have a long history of collaboration. In the 1970s, the Japanese government encouraged horizontal linkages between these firms as a "countermeasure" to the liberalization of imports and investment in Japan's computer and semiconductor industries. These firms have also collaborated extensively in the research and development of new semiconductor device and process technology, efforts which have generally been initiated and funded by the Japanese government. These joint R&D undertakings are widely viewed as an important, if not the most important, factor underlying Japan's international competitive success in this industry:

- A two-phased joint R&D project organized by Nippon Telephone and Telegraph (NTT) enabled the Japanese producers to develop and commercialize 64K and 256K dynamic random access memories (DRAMs). Japanese firms went on to dominate the world market for these strategic products in the 1980s.

- A joint R&D project organized by the Ministry of International Trade and Industry (MITI) in the field of optoelectronics has been credited with enabling Japan to achieve a world leadership position in optical semiconductor technology, which will permit production of devices with speeds hundreds of times faster than conventional silicon technology.

- MITI's 1975-79 VLSI Project (very large scale integration) enabled Japanese producers to make dramatic gains in semiconductor process technology.

- A government-funded 13-firm consortium known as SORTEC was established in May 1986 to develop synchotron optical radiation technology, which will be needed to produce semiconductors of 16 megabit and above density.

There are several ways in which the joint approach taken by Japan enhances the international competitiveness of the Japanese industry. First, it avoids duplication of R&D funds and effort and thus reduces cost -- an NEC executive commented in 1980 that without a joint VLSI project sponsored by MITI in 1975-79 to develop process technology, his firm would have spent five times as much on the development of electron beam technology.1/ Second, joint efforts reduce

1/ The Economist, April 5, 1980.

development lead times, a factor which can be crucial to success in high technology industries where product life cycles are extremely short. A Japanese executive observed in 1983 that his firm's commercialization of the 64K DRAM would have been delayed by six months to one year in the absence of joint VLSI projects sponsored by MITI and NTT.2/ Finally, the joint approach results in the rapid diffusion of new technology throughout an entire national industry rather than to a single firm. Japan's joint projects, which enable five or six companies to commercialize a new product virtually simultaneously, partially account for the "avalanche" style with which Japanese firms sometimes enter the market with a new product.

U.S. Policy Toward Joint Research

Our traditional antitrust philosophy has been substantially different from that of our major trading partners. It has often been said that the principal objective of our antitrust laws is to preserve and protect "competition" as an end in itself, even at the risk of deterring some efficiency-enhancing combinations which would reduce competition. In Japan and Europe, by contrast, while competition is generally regarded as desirable, the effect of a particular combination or transaction on competition is more frequently balanced against other desired objectives, such as efficiency and international competitiveness, and combinations may be permitted which reduce competition but also foster scale economies and technological levels. Explicit or de facto exemptions from national competition laws are a common instrument of industrial policy in both Europe and Japan, and have facilitated combinations such as the MITI-sponsored joint microelectronics R&D projects and the ESPRIT programs under way in the European Community.

The success of such foreign programs has become increasingly evident in the 1980s, U.S. manufacturers, Con-

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2/ New York Times, May 18, 1983.

gress, and the Administration all have become aware that in some cases, the U.S. antitrust laws may inhibit joint activities by U.S. firms which are not only pro-competititive in their objectives, but necessary to enable U.S. firms to remain competitive in the international market. These concerns led to the enactment of the National Cooperative Research Act of 1984, which reduced the anti-trust exposure of firms engaging in pro-competitive research and development. At present, the Department of Justice makes it clear that it looks with favor on this type of pro-competitive joint activity. At the same time, however, many observers are concerned that further changes in the U.S. antitrust laws may be needed to enable U.S. industries to compete on an international scale.

In the 1980s U.S. information industry has begun to actively pursue a greater degree of cooperation in R&D. I have served as a member of the Board of Directors of the Microelectronics & Computer Technology Corporation (MCC) since that consortium was established in 1983. MCC is a R&D joint venture concentrating on the technologies that will be necessary to make the next generation of computers. MCC has grown from a membership of about a dozen companies at its inception to 20 at present. It has attracted outstanding talent from participating and non-participating companies, and both the quality and quantity of work have met, and in some cases exceeded expectations. My company has participated in two of MCC's four project areas, and we believe that the venture has already demonstrated results which exceed anything we could have accomplished on our own -- particularly in the area of semiconductor packaging, where little work is being done apart from MCC's efforts.

It is against this background that a number of leading U.S. semiconductor producers have begun to organize a consortium -- SEMATECH -- dedicated to R&D in semiconductor manufacturing technology.

The SEMATECH Initiative

SEMATECH is in large part a response by U.S. semicon-

ductor producers to the erosion of the U.S. market position in commodity memory products such as dynamic and static random access memories (DRAMs and SRAMs) and erasable programmable read only memories (EPROMs). Mastering the techniques needed to manufacture these high volume, high complexity "technology drivers enables producers to learn process improvements that can then be applied to the manufacturing of their other products, with corresponding improvements in yields, cost, and quality. Since 1984, however, in the face of Japanese dumping, many U.S. firms have withdrawn from the production of technology drivers, and without a major effort, this manufacturing skill will be lost with adverse effects that will eventually be felt throughout the U.S. industrial base. SEMATECH is intended to halt and ultimately reverse this erosion of U.S. manufacturing competitiveness through a pooling of resources and effort by large and small U.S. companies.

The primary objective of SEMATECH is to develop future generation semiconductor processes, materials, tools and test equipment, and to transfer that knowledge to the member companies. SEMATECH's emphasis will be on manufacturing capability rather than device design. The joint approach entailed by SEMATECH -- with the participants sharing in the results -- will not only foster more efficient use of R&D dollars, but will result in the wider dissemination of state-of-the-art manufacturing technology throughout the U.S. industry. It is hoped that this initiative will help to ensure the future competitiveness of the domestic semiconductor industry by developing a strong, supportive relationship with the U.S. equipment and material industries. SEMATECH will consist of three basic elements:

> First, SEMATECH will conduct research and development on advanced semiconductor manufacturing techniques, including sub-micron lithography, deposition, advanced materials, etching, cleaning and epitaxy. SEMATECH will develop strong relationships with universities,

the national laboratories, and state-funded efforts.

Second, SEMATECH will test and demonstrate these techniques on an actual production line, which will utilize an appropriate vehicle as a technology driver. All manufacturing systems will be integrated into a total factory system.

Third, SEMATECH will develop techniques for adapting the processes which are proven on the demonstration line to flexible manufacturing, so that the manufacturing techniques developed in producing the "technology driver" can be applied to the manufacture of a wide variety of other products.

SEMATECH will not produce any semiconductors for commercial use. Its "product" will be technology and manufacturing skill which individual participants can apply to their own needs. SEMATECH will be structured so that small companies as well as large ones can participate and share in SEMATECH technology. SEMATECH technology will be available to non-participants under licensing arrangements. The industry hopes to enlist the broadest possible base of financial support to include the U.S. government, device makers, materials suppliers, equipment manufacturers, end users and others as appropriate.

SEMATECH and the U.S. Antitrust Laws

We believe that SEMATECH will be fully consistent with the U.S. antitrust laws and the policies which underlie those laws. The National Cooperative Research Act provides that the "rule of reason" standard shall apply to joint R&D ventures -- if a joint R&D program has no anticompetitive effects, or if those effects are outweighed by its procompetitive effects, then the venture does not violate the U.S. antitrust laws.

We do not believe that SEMATECH will have any anti-competitive effects. Its basic objective is procompetitive, to ensure that U.S. firms remain in the market which might otherwise withdraw. These firms will compete not only with each other in the production and sale of semiconductors, but with a large and growing number of foreign rivals. Joint

R&D in manufacturing will yield synergies which will reduce the R&D costs of the participants, enabling smaller firms to remain viable competitors. One could therefore argue that no changes in existing law are required to permit a venture such as SEMATECH to proceed.

While I hold the view that SEMATECH is consistent with U.S. antitrust law and policy, I would not rule out the desirability, from our perspective, of modifications to the Cooperative Research Act. The Act provides a mechanism for securing a review of an R&D venture by federal authorities which will subsequently limit recovery by private plaintiffs to single damages. Given the current structure and objectives of SEMATECH, I believe that recovery of even single damages by any plaintiff would be unlikely. However, private actions for damages may be filed -- there is no way we can prevent that -- and we will not know for certain whether such an action will fail until the day the court renders judgment. That fact creates a substantial business risk for participants, and may chill participation in the consortium. These firms are being asked to make a substantial investment both in terms of funding and commitment of key personnel to this project, and the prospect that a federal court might find the venture illegal is a potential deterrent. This risk factor may be reduced through amendments to the Act.

Conclusion

The U.S. semiconductor industry has always been highly innovative and competitive, a fact which has driven down prices for consumers and progressively expanded the applications for microelectronics technology. We are now confronted with the prospective disappearance of large segments of this industry, and its displacement by oligopolistic foreign firms with attitudes toward competition which are fundamentally unlike our own. This is neither in our national

interest or conducive to maintaining a fully competitive marketplace. SEMATECH is designed to ensure that a fully competitive U.S. semiconductor industry will continue to exist through the 1990s and beyond.

It deserves all of our support.

The CHAIRMAN. Thank you.

First of all, I thank you all for speaking precisely to the questions we asked you to speak to. Secondly, I would like to, since I have the luxury of not only being the chairman of this committee but being the only one here, I would like to have as much of an interchange as we can. Please, as I ask questions, I would like each of you, if you want to add something or challenge what someone else said, I would appreciate that. That would be helpful to me.

Let me begin. First of all, you have answered in your testimony a number of the questions I had prepared, but let me start off.

None of you but Mr. Scalise has indicated any real enthusiasm for changing the law beyond what it is now, but nonetheless you indicated that, by what I thought to fairly compelling statistics, the number of joint R&D ventures went up significantly since we passed the last modifications.

It seems to me an argument can be made—and I think you in part made it—that one of the reasons that it had not occurred before is, notwithstanding the fact that the efforts may not have been met with objections from the Justice Department or anywhere else, nonetheless there was a chilling effect in the law.

Why would Mr. Scalise not be correct in his concluding statement, when he says that although it probably could be done anyway, the concern is that the chilling effect of the prospect of having to wait through a court adjudication of this would keep firms from doing what they might be able to do already? Why should we not err on the side of passing this legislation? What is the down side? Does it not have an up side?

I would like you to speak first, Mr. Brodley, and then I would ask all of you to jump in.

Mr. BRODLEY. Well, the difference between an application of the act to downstream collaboration and the present status, which is limited to R&D, is twofold, I think. One, the risk of restraint of trade and cartelization is ever greater as you move downstream, and, second, the need for the collaboration is harder to justify as a general matter.

There is at least in theory a problem in the R&D field that a company may not be able to obtain the full fruits of what it discovers because new innovations are so easily copied.

As you go downstream and build a manufacturing plant, the problem of inability to recover the full benefits of your investment drops away, so that the only remaining justification is some kind of synergy or economy of scale. Now I think either of these effects could be present and require inter-firm collaboration, but that you would need a sufficient combination of firms to create market power seems to me much less likely at the production level and even less likely at the marketing level. So I think that the probabilities of benefits and the probabilities of social losses simply change the balance as you move downstream in production and marketing.

Mr. LEVIN. Maybe I misheard you, Mr. Chairman, but I interpreted your question rather differently than Professor Brodley did. I took you to be referring not to the distinction between research and production ventures, but was rather asking whether we should

be more permissive than even the 1984 act is with respect to research ventures. Is that a correct interpretation?

The CHAIRMAN. Perhaps I should restate the question. I would like that question answered also, but what I was asking was if in fact the—our last witness indicated in his concluding paragraph something to the effect that the things that Sematech is considering doing would probably be able to be done anyway under the existing law——

Mr. LEVIN. Right.

The CHAIRMAN [continuing]. But that absent a change in the law as suggested, there would be a chilling effect and they might not go ahead and do what was already able to be done. I guess I had two questions.

Mr. LEVIN. OK.

The CHAIRMAN. Is what is described—and you heard the testimony—that Sematech is considering, is it first in fact something that you believe would be permissible under the existing antitrust laws, and if not why not? I guess that is the best first thing to state. Second, if it is permissible, is there not a rationale to move in the direction of the legislation suggested because there is a chilling effect. And participants may not get involved with something they are already able to be involved in, because they are fearful that they will find themselves embroiled in a court battle?

Mr. LEVIN. OK. I could pick up on that. My understanding of the way the proposal for Sematech is presently structured and as was articulated today, it sounds almost certainly as though it would fall into the terms of the current Cooperative Research Act and would be judged a research venture.

I suppose the only potential ambiguities would be if—you talked, Mr. Scalise, about producing tools. I mean if any of those tools turn out to be actual physical pieces of equipment that are manufactured by the venture, I suppose then you would be in the area of joint production of some input, but in terms of software I think MCC is producing software and that seems to be covered under the scope of the act, and I take it the software is mainly diagnostic and production related-type software anyway, not product designed software particularly.

So it seems like the venture falls under the categorization of a research joint venture as presently conceived, and that being the case, the question is where does the chilling effect come from. And I understood Mr. Scalise's testimony to suggest that the chilling effect came from the possibility that even though we are more permissive than we were, there is still a rule of reason applied to such ventures and there is a prospect of recovery of some single damages, if not treble.

So the question is should we go farther, should we go to a situation in which, for example, there is either per se legality for these ventures, for research ventures, or alternatively, a situation where there is not per se legality but where the only possibility for relief is injunctive relief, break up the venture rather than penalize people financially.

My own view on that would be it would not be a good idea to grant per se legality to such ventures just because there are prospects of collaboration, industry-wide collaboration in the innovation

market, as it were, could be deleterious to consumer welfare. If you have the entire industry participating in a research joint venture, perhaps focused on some end which is not directly remunerative, let us say like pollution control joint ventures or something, if there were no potential antitrust risk it might lead to a slowing down of technical progress in that area, so you would worry about monopolization of the research market as a possibility.

That I frankly cannot see as being a serious risk in the semiconductor business, because even, as we said, the innovation market is almost certainly a worldwide market, even if the product market might be insulated by trade barriers. Knowledge flows freely, and I do not see any serious risk there.

So the only remaining question is should we get rid of damages, and I suppose that might be worth considering in that it is not quite clear who is going to be suing for damages in such cases, for research joint venture damages anyway.

Certainly, competitors are more likely to sue for damages than customers, and generally speaking competitors suing for damages is not a very good idea throughout the antitrust ideas. I mean it is—in talking about mergers, where the suits are usually brought by competitors, rather than customers if they are private suits, damages are rarely recovered in any case.

So you could consider getting rid of that provision; on the other hand, I am not particularly sure it is harmful or really produces that great a chilling effect in the first place.

The CHAIRMAN. Mr. Porter?

Mr. PORTER. My view, sir, is well summarized by Professor Brodley. I believe that in the pure research area there is some legitimacy to the notion of cooperative research. My own view is that this is best done through university-industry cooperation, as opposed to firm-to-firm cooperation, because I think that the university element reduces the risk that any cooperation leads to undesirable effects from a consumer point of view.

When we move towards commercialization and application of technology, very, very serious questions are raised about whether cooperation is in the interest of competition. The benefits of the collaboration also get harder and harder to justify even from a company point of view.

The other question that I raised is that we also have to consider the question of whether these cooperative ventures will actually work, whether they are really significant, whether they are really going to make a big difference.

A lot of companies today are doing cooperative research because it is the thing to do, because it is very popular and much discussed, not so much because they have a clear sense that they are going to get some benefits. I hope that the MCC venture has been indeed a successful one, but it would be the exception, in my experience, if it has been.

The current law which focuses on the research side is entirely appropriate. I think that the rule of reason approach is also entirely appropriate, because I can imagine circumstances when an industry could construct a joint project which would be very, very unsettling from a competitive point of view. I am not saying that is

the case in the Sematech venture, but I can imagine circumstances where an industry would do something that was anticompetitive.

And as to the question of damages, I think Mr. Levin's comments are well taken.

The CHAIRMAN. Mr. Scalise?

Mr. SCALISE. On the issue of research and the various roles that different groups can play, I happen to be chairman of the board of the Semiconductor Research Corporation and that organization has been totally funded by the industry—the government became a member last year—that funds basic research at universities. Now, that is an important role, because it really does push the technology forward, it trains students, it takes advantage of the university research effort.

There is another level of activity which would be the MCC, which is the next step in the evolution between basic research and what you could call pure development. Sematech is the next. There is a whole mosaic of activity here that needs to be dealt with, especially in today's world which is very different than it was. Five to ten years ago, you would talk about a manufacturing facility that had relatively unsophisticated equipment and relatively low cost, that was easily available to small firms and minimum R&D was needed to develop the equipment. Those days are past for an industry as complex as the semiconductor industry. We are now dealing with sub-micron technology which is much more demanding.

So it takes much more money, much more concentration to solve a problem. Given a choice, I think the industry would love to be back where we were 20 years ago, where the small entrepreneur could do it all and be successful. We used to even develop our own equipment. We did not worry about someone else doing it. We were small, we could make a bonder, we could make whatever was necessary. We could make a furnace. You cannot do those things any more. These are very, very sophisticated pieces of equipment that cost upwards of a million dollars and it is going to go well beyond that.

The CHAIRMAN. And it is your argument that other countries, particularly the Japanese—how are they able to do it?

Mr. SCALISE. Well, through many joint efforts in the past they have developed the synergy, and as a result they have some of these equipment operations now in place that are related to these large organizations.

Though, they have been able to put together a joint effort to develop the equipment or to develop a process, or in the case of memories to actually develop the product itself which was then given to everyone.

Now, we do not propose that be the case here. We do not talk about developing a product that everyone then enjoys the benefits of. We are talking about developing the tools so that we can develop the products that we think are important.

The CHAIRMAN. Explain to someone who knows nothing about your industry——

Mr. SCALISE. OK.

The CHAIRMAN [continuing]. What do you mean by "tools." Do you mean the thing that actually stamps out——

Mr. SCALISE. Yes. Now——

The CHAIRMAN. What do you mean by that?

Mr. SCALISE. When you talk about a tool in this business, it can be a photo lithographic tool, which is a very, very precise instrument that is capable of taking a pattern and transmitting that pattern onto a piece of silicon like you have had in front of you. This is done in a very pristine atmosphere so there is absolutely no contamination. The slightest particle of contamination renders a circuit useless.

The CHAIRMAN. Now, that is what you mean by tool?

Mr. SCALISE. That is a tool in our business.

The CHAIRMAN. In your business.

Mr. SCALISE. It is a very different tool than a drill press.

The CHAIRMAN. Right. Now, is the Sematech joint venture, to over-simplify, is one of its purposes to be able to develop those kinds of tools——

Mr. SCALISE. That is correct. That is the primary motivation for Sematech, to develop these tools so we have this manufacturing capability to produce state of the art products.

The CHAIRMAN. Now——

Mr. SCALISE. Now, we have other things to help us do design work.

The CHAIRMAN. OK. Now, Mr. Porter, have the Japanese developed these, are they—to over-simplify it again—are they ahead of us in their development of these "tools"?

Mr. SCALISE. They are reaching a point where they are at parity on tools, maybe in some cases they are actually ahead of us. The concern that we have to live with here, and the reason Sematech is so important is, since the folks that make the tools in Japan also turn out to be our competitors for the end products, the components themselves, we will never have current generation tools available to us, therefore we would never be able to be competitive at the state of the art with new products, and that is the major concern that we have as an industry, we have to have the tools that will allow us to be competitive at the state of the art processing, and we will never have that as long as our competitor owns that capability. I think that stands to reason.

The CHAIRMAN. Now, Mr. Porter, you mentioned your experience. Is Mr. Scalise's rendition of the Japanese situation one that you think is accurate?

Mr. PORTER. In his testimony, he did not go through it in detail this morning. He did list, I think, a series of Japanese cooperative research ventures. Some of those bore some relation to tools building, to making equipment to manufacture semiconductors.

My experience has been that the joint ventures, the cooperation was perhaps helpful, but the investments made to build state of the art factories and the orders placed for tools were not funded by cooperative projects or by government but by individual companies making very large bets in terms of capital.

Now, many could argue that the ability of the Japanese companies to make investments in tools and to buy equipment and to build a plant, even though it is very risky, is greater because they are large, because they are diversified, and because they have major internal markets for semiconductors since they usually

make products out of semiconductors as well as the semiconductors themselves.

What I do not understand is that we have the tool companies in the United States, companies like Perkin Elmer who are manufacturers of this equipment, and we have multi-billion-dollar semiconductor companies who can certainly place orders for state of the art tools with our state-of-the-art tool builders. Why then, do we need to go through a Sematech venture and why is this going to assure that our industry catches up. I do not think that cooperation is what has made the Japanese tool builders the world's leading tool-builders. I think the reason is that there have been a lot of orders placed and there has been a lot of innovation and there has been a lot of investment. It seems to me that the real problem, if there is one, is the large size and diversity of the Japanese semiconductor companies, not the problems we are discussing today.

If we do not deal with that fundamental problem, I do not see how Sematech is going to be much of a solution. But as long as it stays on research and as long as we have adequate review and safeguards, fine, let us give Sematech a try. What I keep saying is I do not see Sematech as being a truly strategic solution.

One of the things that also concerns me is that I have seen in the press a request for $250 million of Federal funds to go into Sematech. When we move from an industry venture to one where $250 million of public money is involved, that changes the standards we ought to apply to whether we ought to be participating. That is my concern.

The CHAIRMAN. I would like Mr. Levin to comment because he is anxious to. But let me say, you know, the concern that a policymaker has, as one who is not by any stretch of imagination remotely approaching an expert with a knowledge base relating to the industry that we are discussing, is that I sit here as a United States Senator, and there is a hauntingly similar historical precedent of what is happening to the United States now and what happened to Britain about the turn of the century.

All this new technology came rolling out of Britain. We figured out how to manufacture it, make it commercially applicable, and we got the jobs and we became the world economic power in part as a consequence.

What I see sitting here, to over-simplify, is that we have these technological breakthroughs in research and development. It seems, based on what you all said, that we are still continuing to hold our own or, in some cases, surpass that. I want to get into this area of super-conductivity soon, because that for a layman looks like, if it occurs, it could revolutionize the world, literally. I sit here and I just hear from some of my colleagues and people in the business that while we are rapidly moving toward breakthroughs in super-conductivity in the research and development stage, the Japanese have already allocated significant resources for the purpose of figuring out commercial applications of something that hasn't even come fully into fruition yet.

Now, why in heck has that happened? Why, separate and apart from whether or not we need to relax antitrust laws—I mean what is the mentality of American business these days? I am not being smart. It is a serious question. Maybe I am wrong. Maybe the

premise I am stating is incorrect, but I do not quite understand the mentality.

We have this phenomenal research capability that is bearing fruit, from Silicon Valley to Wilmington, Delaware, and the Du Pont Company. Yet I do not quite understand why they are not equally as eager and aggressive with regard to the market strategies that are being placed out there.

I just want to make it clear why I am so concerned. Maybe you can dispel my concern, maybe it is not a genuine concern, and if it is maybe you can speak to it. Mr. Levin, why do you not follow up with what you wanted——

Mr. LEVIN. Well, rather than go back to that, you really asked Mike Porter a question, why do we not let him take a shot at it? He is Mr. Competitive Strategy, so we ought to let him——

The CHAIRMAN. Maybe we can start with you, Mr. Scalise, why is your industry—why do you need this? We are so damn big and strong and powerful; why does a Fortune 500 company not go out there and say, "Hey, wait a minute, this is a phenomenal potential marketplace for us, why don't we finance and buy the machines?"

Mr. SCALISE. It is a good question. Let me see if I can concisely give you an answer to that. As I said early on, the semiconductor industry has always been a very competitive industry—new products, greater capability, lower costs, and so on. That chain was broken—and this is why this gets very complex, there is no one piece—that chain was broken when the Japanese came in and began to dump D-RAMs in this market.

One of the things that they did was they destroyed the opportunity to generate the revenues and generate reasonable margins that would allow one to continue to drive technology, reduce costs, and keep this chain of innovation, design, and manufacturing going. There was a major dislocation, and all of a sudden very effective companies for a number of years were all of a sudden in a lost position.

One of the things that that did is it changed the pattern of investment to some degree. Now, you say how can they do that. Well, as you and I both know, they have a different agenda than we have. It is an export driven economy, they shelter their own markets, there are a lot of things that happen. So you get into this thing and all of a sudden the mosaic, all the pieces start to show up.

The point is we have to find a response to the problems that have arisen as a result of this major dislocation. Now, I do not think Sematech is a solution that goes on forever. We envision Sematech——

The CHAIRMAN. Is this dislocation merely in the computer chip industry or is a dislocation that occurred—for example, we go out, you go out, you in an editorial sense, and invest the VCR and they market the damn thing. They come up with a commercial means by which to—is this across the board, or are we just talking specifically about——

Mr. SCALISE. Again, it is across the board in the sense that if you go back to the VCR issue—and the compact disc is another one—you have to go back to the TV industry and see what happened.

Our consumer product industry was destroyed in my view through dumping back in the late sixties and early seventies.

Now, whether or not we responded to that appropriately or did not respond appropriately, we will let history decide for us. One of the things that we recognized as an industry was as soon as that pattern began to evolve for semiconductors, we could envision the same thing happening to us and that is why we got very vigorous with regard to some of the things that we started to push for, the modification of antitrust laws, and the Chip Protection Act. We had no protection for our designs, and these guys would steal design after design. We had spent millions of dollars on it and through photographic processes they could reproduce it for a couple hundred thousand dollars. Well, that is not competition in my view, it is stealing and we had to get that changed.

The point is that the consumer industry was destroyed and when the next generation of equipment came along, there was no industry to participate. They do not have the manufacturing, they do not have the marketing, they do not have any of the things that make for a competitive industry any longer. We need to avoid those same pitfalls in semiconductors, and I think we can.

Now, again, we are not looking for anything that is unusual in terms of a capability, or support. What we are looking for is an opportunity to make a major investment in tools so that we can be pro-competitive. We can use our innovative capability. We still have to make the investment in these factories. That does not change. We still have to take the same risks that our Japanese competitors or anyone else has to take when you put the design together with a facility and start to market the product. We still have to take all of these risks.

What we need is a capability that will allow us to take those risks, knowing that we are at the forefront of the technology, we will then be competitive with the products from across the pond. That is really what this is all about.

So, yes, there have been some mistakes, but I think when we look back and see what those mistakes were, some of them may have been on the part of industry and some of them may have been because we were not as vigorous in pursuing the dumping laws as maybe we should have been.

I applaud what the administration has done here in supporting us on the trade agreement. I think it is an important program because it clearly demonstrates that if you violate our trade laws in dumping or you deny us access to a market, we have to react and we will react, and appropriately so, only on the merits of the case, and I think that is what is happening here.

So there are many of these pieces that need to be fit together. The Sematech proposal is just one of those and it only lasts for as long as necessary as to develop the manufacturing capability once again. These small firms are not going to be able to do this on their own and we have got to figure out a way of doing it jointly. We are talking about an activity that is going to spend something in the neighborhood of $200 million a year. MCC is spending $70 million a year on research programs today.

This industry is one that has been spending on average 10 to 12 percent of its sales dollar on research and development. U.S. indus-

try on average spends around 2 to 3 percent. So it is doing everything that is necessary, but when you are hit with this big juggernaut, that is prepared to lose money for a long period of time, then we have got to figure out some way to react to that and that is what this is all about.

The CHAIRMAN. Mr. Porter?

Mr. PORTER. This discussion is turning in a direction that we could truly occupy the next few weeks talking about Mr. Chairman, but perhaps in the interest of brevity I think that——

The CHAIRMAN. Do not worry about being brief unless you have a time constraint. I do not.

Mr. PORTER. No, I am fine.

The CHAIRMAN. I cannot think of anything more important right now.

Mr. PORTER. In a range of industries, to pick up on your question, U.S. firms lost the will and the initiative and the aggressiveness to commercialize innovations. I am sure that in some cases their ability to do that was harmed by unfair trade practices like dumping.

However, I can give you some of my own personal experience. I consult with a lot of companies and one of the things we almost always have to do is study the Japanese competitor that the company inevitably has. One of the things we always have to do then is figure out what its costs are, that is part of a good competitor analysis.

Time after time I have gone into American companies who have said these Japanese companies are dumping, and when we have done the analysis we have been able to prove that the Japanese company was making a healthy profit because they had low cost and were very productive and they are running their factories very, very efficiently with few people and very low cost raw materials.

This experience gives me concern about the dumping rationale for why we have not succeeded. I think maybe it held in a few cases, but I would ascribe much more importance, Mr. Chairman, to something I see in competitive markets all the time. When somebody has been a leader for a long time, it always takes them a while to figure out that they are under attack and to make the necessary responses. There is a slowness and an inertia in many American industries—I would start with automobiles and move from there—that is perhaps a function of a dulling of competitive spirit, if you will.

Now let's consider the semiconductor industry. The reason it has gotten such a hearing in Washington is for just the reasons that Mr. Scalise has said, it has been an innovative industry, it has been an entrepreneurial industry, it is the symbol of entrepreneurship in this country. There has been a lot of improvement, and I do not know whether or not the dumping case is true or not, but let us assume it is.

The semiconductor industry is now in the saddle, taking vigorous action to improve its position. My concern is that Sematech may be a legitimate venture but that there is no need for any more. There needs to be no further government funding or no further government initiatives in this industry.

There has been a large improvement in the stock prices of the U.S. semiconductor industry because of the movement of the dollar. There is a trade agreement in force. What concerns me about the semiconductor industry is their continuing to ask for more. I think it is time for the industry to take the actions necessary to implement all the good things that have already happened.

Many American industries are pulling up their socks, they are restructuring their plants, they are taking their lumps, and they are taking huge writeoffs. I think this mentality is now starting to grow in America again. So I, Senator, am not pessimistic across the board at all.

But I am a little bit puzzled as to why the semiconductor industry is coming to Washington again for another several hundreds of millions of dollars of support. I think that enough support has been given and I do not see any reason for further support.

Mr. SCALISE. Just a couple of comments in response to what Mr. Porter said.

The CHAIRMAN. By the way, jump in, Professor Brodley.

Go ahead, Mr. Scalise.

Mr. SCALISE. Let him make some comments and then——

The CHAIRMAN. No, no, I want you to comment, but I just wanted him to know; he has been so polite here.

Mr. SCALISE. First of all, the semiconductor industry in Japan is losing substantial sums of money. It is somewhere between $1 billion and $2 billion, so it is not as though they have been more competitive than U.S. industry. They have deeper pockets, there is no question about that, but not more competitive. The independent evaluation of the government has clearly demonstrated that dumping has taken place, not minimal dumping, but where they are selling at a third of their costs.

Now, maybe there is an error in the calculations, but when you talk about selling at a third of cost, that is dumping, whether it turns out to be exactly a third or a half. So I do not think there is much issue in either of those two cases. They are losing a lot of money. They are losing a lot of money because it is a targeted industry. It is fundamental to their future.

Now, the other point that is really important here is exchange rates do not mean anything in that environment. When you are prepared to take market share because that is the number one issue on your agenda, then price, conversion rates on currencies, whatever, those all are secondary and as a result, instead of losing a little bit of money with the new exchange rates, they have lost a lot of money. I can assure you that as long as they can sell their TV sets in here and can develop the revenues they need as a total corporation, they will continue to lose money, they will continue to dump as long as we allow them to.

Again, as I say, Sematech is only one part of this thing. You can talk about the cost of capital, you can talk about the differential in standards of living and the rate of change in the standard of living, and all of these things come into the equation, but we cannot deal with that here. We are dealing with just one part of the problem, with Sematech, and that is to have manufacturing competitiveness. We have to deal with all of these other areas in different arenas.

Mr. LEVIN. Let me make a couple of observations about developments in the semiconductor industry, one specific one and then one that bears on the broader issues that respond to your question, Senator, and to Mike Porter's comments on them.

The first point about dumping, I think the language, the idea of dumping sort of connotes aggressive pricing, a sort of active stance, we are going to price low and under-sell you guys and take the market away. In that sense, I do not think that we have really seen dumping. What we have seen—and this is the sense in which Mr. Scalise is exactly on the mark—we saw targeting, we saw tremendous investment in D-RAM capacity to build up an enormous excess capacity two or three times what the current world demand was for memory chips, and it was competition then with this tremendous overhang of excess capacity that led to prices falling. It is not like any one firm was an aggressor and took an aggressive pricing strategy. Indeed, the Americans got in, some American firms got in and priced aggressively, too, they did not want to lose their market.

But the underlying cause was a very clear targeting in the sense amongst the Japanese firms that the D-RAM was going to be an important technology driver for them and they all individually invested enormously in capacity to their mutual detriment, at least in the short run.

It is actually hard for me to conceive that all the Japanese firms are going to come out whole in the long run from this strategy. There are going to be a couple of big winners, the ones that get the lead will remain the strong firms. Some of the Japanese firms, just like some of the American firms, are going to take a bath in this process.

Now, turning to one other aspect of this, I actually agree very strongly with Mike Porter that this kind of lassitude of the leader is a real problem in trying to understand why the American response in many sectors of the economy has been sluggish, and let me give you an example out of this industry of a leader who woke up a little too late, but at least has awakened and is doing something about it.

Texas Instruments, as it turns out, has a commanding share of the key patents in the area of D-RAM technology—I guess there should be a disclaimer. I testified on behalf of Texas Instruments in some recent litigation, so I ought to make that clear.

But Texas Instruments recognized after the 1985 debacle in the D-RAM market that the Japanese were succeeding in this very area where in fact Texas Instrument had a lot of property rights and basically was licensing the products, the technology to the Japanese for a pittance, and so it took a very aggressive stance in the renegotiation of patent licenses and said, look, if you are going to use our technology and beat us in the marketplace, at least you ought to pay us for our technology and demanded a very high price, high royalty for their technology which led to litigation which is presently before the International Trade Commission on grounds that the licenses in fact expired and the Japanese continued to use the patents or at least according to Texas Instruments continued to use the patents in their production and consequently

are being sued under section 337 of the trade laws for infringing imports.

Now, the important point about this is I do think a key element in the ability of the Japanese to catch up has been the ease with which they have been able to catch up with the United States, and that is not only through the blatant of copying of things that were not protectable under the intellectual property laws, but indeed through the variable and very low cost licensing policies that United States firms had for a long time.

Those policies served an important purpose in the early history of the industry, as Mr. Scalise suggested, because everybody was contributing to the moving technological frontier and a lot of the contributions were interdependent, so by sharing them everybody benefited.

What happened was the Japanese for a period of time were big net recipients of technology and not big donors, and they were getting the technology on sort of historical terms that were sort of designed for a bunch of mutual donors, and that is one area at least where the industry can clean out its own house a little better by taking a more aggressive strategy in protecting its technology.

The CHAIRMAN. I do not want to be too anecdotal here, but my first trip to China, after meeting for several hours with Deng Xiaoping, I came back through Japan. I am the second ranking member of the Foreign Relations Committee. On the way back through Japan, I stopped to meet with the former Prime Minister of Japan, sat with him for an hour and 30 minutes or thereabouts. He was very interested and wanted to know what happened in China. I was telling him. There were two industrial leaders who had come with me and former Senators Church and Javits.

Through an interpreter, the Prime Minister said on three occasions the following: "Do not do with the Chinese what you did with us." I asked, "What do you mean?" He said, "Do not do with the Chinese what you did with us. You sold us your technology. Do you understand what would happen if they had it?"

I thought that was a very interesting little comment. Then he went on to explain to me, as if I did not know, there are almost a billion people over there, and he asked if I knew that. I just thought that was one of the most insightful comments I have ever heard anybody make. He was worried because there were two leading executives, one related to a commercial operation for a chemical plant. He said, build the plant but do not give them the licenses.

Mr. SCALISE. That is interesting, Senator, because again understanding the history here is so important. Keep in mind that the laws of Japan until about 1975 did not allow us to invest in a manufacturing facility in Japan.

The CHAIRMAN. I understand that.

Mr. SCALISE. In fact, when the government was getting ready to sign the Sato-Nixon accord in 1969, we got the idea that we would put a plant in Okinawa and when Okinawa reverted into Japan we would have a plant in Japan and we would have solved that problem, so I went ahead and I made an application and I got it approved and I put a plant in Okinawa. The accord was signed and then all of a sudden the negotiations started, because there was

this conflict. They said, you know, we do not allow wholly-owned subsidiaries here. I said, well, the accord said if you are in Okinawa you are allowed to come into Japan.

After about 2 years of negotiations it ended up that it had to be a joint venture. So the industry, yes, it did sell technology but it was not given the option to utilize that technology in that country in the same way that we were given an opportunity to do it in Europe.

We sold technology to Europe as well, but we were given the opportunity to put plants in Europe, to sell free into Europe, and as a result we own the largest share of that market because of our innovative capability and our aggressive manufacturing and marketing in that marketplace. If we had been given that same opportunity in Japan, I venture to say that today it would be a very, very different situation. So it is important, but they did not allow us to utilize that capability.

The CHAIRMAN. Let me ask a few more specific questions, if I may. The United States, as I have made reference earlier but I am going to repeat it for the record, the U.S. scientists just announced a breakthrough in super-conductivity. You all understand super-conductivity as well or better than I. This new technology may revolutionize many products, including computers, we are told, yet reports in the press and from other sources already describe a frantic commercialization effort in Japan.

In this country, the more measured pace seems, if past is prologue, to leave us in the dust on a product of our own invention. This story, as I said earlier, seems to repeat our experience in robotics, video-cassette recorders and other products. Might it be the case that the problem is not our innovative capability but our lack of dedication to engineering and commercialization. If so, what policy responses are called for, particularly as they relate to commercialization, beyond what we are discussing here, beyond the Sematech proposal? Are there any other reasons?

Mr. LEVIN. I would not count IBM out of the super-conductivity horse race. I think we will hear from them.

The CHAIRMAN. In terms of commercialization.

Mr. LEVIN. Yes.

Mr. SCALISE. Well, I think super-conductivity is very early in its evolution. It is kind of like fiber optics was a few years back. I think that there will be important players here in the U.S. that will commercialize super-conductivity and I do not think there is any question about that.

Now, whether or not there will be some requirement to pool some resources at some point to do a certain part of what will be necessary to commercialize it, I do not really know. It is possible, but I do not think there is any question that there will be important players utilizing that technology.

The CHAIRMAN. Do you have any question about what the Japanese strategy will be on this new technology?

Mr. SCALISE. Oh, I think they are going to try and drive the technology forward as quickly as they can, commercialize it as quickly as they can, even at the expense of perhaps substantial loss. I do not know how they will underwrite it. A lot of these things are not quite as clear as they take place in Japan as they are over here,

but I do not think there is any question that they are going to be very, very aggressive about pursuing that and we have to be aware of it and we have to be competitive in that regard and we will be.

Mr. BRODLEY. Senator, may I just raise the question that is pertinent to our hearing, which is how could cooperative action assist in the commercialization of a product? I would like to raise that as a question.

The CHAIRMAN. That is the question. In other words, the suggestion made by some is that because the Japanese are going to be prepared in a technology that may literally revolutionize the world as we know it, because they are going to be prepared to take tremendous losses if need be in order to be able to gain market share and commercial applicability of this new technology, that regardless of our existing laws, the consequence of that occurring could be so dramatic in terms of our economic standing going into the 21st century that maybe we have to fundamentally rethink the way in which our industrial base functions.

If in fact the worst of all cases—again, I had an opportunity to sit down with one of the Nobel Laureates who were the breakthrough folks in the superconductivity and get educated a little bit on it. I have tried to read everything I could on it, with the background as a liberal arts person and an attorney, which is a very debilitating background for this. But one thing comes clear to me. Even if one-half of what is potential in this area were to come to fruition and the Japanese or any other country were to become the dominant player in the commercial application of this technology, then we really are going to move into being a second rate economic power in the world.

Mr. BRODLEY. Could I just make this additional comment? I would accept every single word of what you said, and maybe an implication might be that we have such a stake that it is an issue as to which subsidy might be considered, but I still would ask the question how would it help if the firms could get together on commercialization, how does that help solve that problem.

The CHAIRMAN. The answer is I do not know. I do not know the answer to that. I do not know that it would help. I am not at all sure it would. I mean, my inclination is that it would not, but I think we have to raise the question.

Mr. BRODLEY. Yes.

The CHAIRMAN. For example, what would happen—we made pretty firm judgments about other areas where we just concluded that monopolies were good. We made judgments early in our history. We made judgments about monopolies in distributing water, you know, who gets to dispense water in the State of Delaware. We made monopolies in terms of communications in the past and to a lesser extent now. We made judgments.

Now, I guess what I am asking is are we moving into an area of this new high-technology where maybe we have to fundamentally rethink the way in which we do it? I do not know the answer. That is a question I raise.

Mr. SCALISE. I think it is a good point. Let me just make a comment here. You know, I think you are really touching on the issue that needs to be dealt with, because we are taking this thing step by step and, as I say, MCC was a step back in the process. Now

Sematech is a little further along, although it is not product oriented yet, but we are moving in that direction and it may turn out that at the next step in the evolution of technology the costs and the risks and so on involved may demand that.

Now, one of the things that is being suggested—and there is a bill over in the House, H.R. 2191, to put together the National Advisory Committee on Semiconductor Research and Development, and the idea is to look at these issues of the future and see where the technology is leading us and what kind of problems are going to arise and what kind of collaboration is going to be required, what is going to be a reasoned approached to dealing with these new problems that are going to be facing us.

And I think for us to try and sit here and say that all of the old rules will apply and be effective just may not be valid, as you point out. There may need to be some new understandings, some new approaches.

The CHAIRMAN. Mr. Porter and then Mr. Levin.

Mr. PORTER. I would like to comment on this semiconductivity question, but perhaps use it as a case study of a set of broader issues, if I might. First of all, Rick Levin said the word "targeting" when he talked about Japanese company investment in the semiconductor industry. I think if I pushed him he might withdraw that word. Each of those Japanese companies invested tens if not hundreds of millions of dollars themselves. They did not get any money from the government, they did not get any advice from the government that I have ever been aware of, and some of the companies I know personally. They each made investment because they viewed it as strategic to their future that they had to do it.

In fact, a leading Japanese semiconductor company, NEC, funded a big part of its the investment by raising money in the European capital, markets. They had a debenture issue in Europe to raise the capital, and they will tell you that Hitachi and Toshiba were hesitant to invest.

So the notion that somehow there is a national strategy here is really an old and obsolete idea. We are chasing ghosts if we keep talking about Japanese national strategy and that somebody is orchestrating all of this. If anybody is orchestrating it, they certainly would not have done it the way they did. They would have had one or two companies invest which would have been much more efficient. Now we have got a mess and they know it.

What do U.S. companies need to do? Well, we have a long tradition of companies like RCA and such who have lost money for a decade to commercialize a new technology. Our capital markets are very good at funding risky projects. We have a huge venture capital industry, the best in the world. Anybody with a crazy idea can get $10 million. They are littered all over Cambridge, Massachusetts. Most of them fail. They never have to succeed. They still get money.

We have adequate mechanisms for companies, if they have the confidence and if they are willing to take the risk, to pursue these kinds of ventures.

I would support having in universities and through the National Science Foundation the kind of thing that Mr. Scalise was starting to talk about. That is, some investments of public money to seed

research on important technological areas of cross-cutting importance. I think that is entirely appropriate and that is an entirely legitimate role for government.

I do not think that we need any special mechanisms to deal with super-conductivity. Our companies should be able to develop it themselves with the existing set of institutional mechanisms. As long as we do everything we can to make sure that our universities are first rate, that our government R&D budget is being spent in areas that are really important, I think that there is no need for any new mechanisms. All we need is competition and we need companies that are aggressive and willing to take risk.

Ironically, Senator, do you know who invented the price-down, the cost curve to get market share? Do you know who the company was that really pioneered that idea? Texas Instruments. Texas Instruments is the firm that really is associated with the learning curve philosophy and priced ahead to get market share. Is it not ironic that we are talking in the semiconductor industry about how we are being beaten with that strategy?

Mr. SCALISE. It is not the strategy, it is the dislocation of the learning curve that does it. The strategy itself is a sound one, but when you dislocate the curve such that there are huge losses that occurred, as opposed to revenues and margins that allow you to continue the investment cycle, then it becomes destructive as opposed to being supportive. There is a very, very important difference there that you have to understand. The Japanese have dislocated the curve. When you do that at that level, you generate those losses. You cannot invest in the next round of technology and the next round of manufacturing capability. That is what is destroyed.

Mr. PORTER. Then you are safe because they are not going to be able to invest in the next round if they are dislocated. Japanese companies are not losing money voluntarily. They are losing money because too many people invested in a down cycle. This is not the natural process of competition in the industry and it has not somehow been suspended I think is unfortunately not the right analysis.

Mr. LEVIN. Just to respond to one specific point of Mike Porter, I would not retract my claim of targeting because I think what you are missing, although you are right about the independence of Japanese companies and their fierce competition amongst themselves, but there are ways in which the Japanese government facilitates the efforts by basically taking the posture of letting those companies fight it out among themselves but, boy, keep them insulated from the Americans, and there has been a long history of that, both with respect to trade protection and barriers to direct investment.

The CHAIRMAN. Insulate them from Americans in Japan.

Mr. LEVIN. In Japan and to give them in some sense, you know, protect the domestic market which is a fairly large market, gives them then the benefits of that cumulative production experience and the learning curve advances they derive from domestic——

Mr. PORTER. Excuse me. I would agree with that. I think we have fought that battle. I think we are in the process of starting to win that battle and so we have dealt with that. So let us not talk any more about that. I think that is in the past now.

Mr. LEVIN. I agree with that.

Mr. PORTER. Let us talk about the future, what do we need in the future.

Mr. LEVIN. Well, let me talk about the past a little more though, because the future—the issue of super-conductivity and what should be our stance towards super-conductivity—I might add that biotechnology is another burgeoning technology of extreme importance.

The CHAIRMAN. I did not want to be parochial.

Mr. LEVIN. You know, Mike made some good points about the importance of funding basic research and keeping the universities strong and so forth. I certainly subscribe to that. But if you look historically at the role of government in developing some of the technology areas in which the United States has been the historical leader and an export performer over time, the government has played a much more important role than just—a much more direct role than just a role of funding basic research.

What I have in mind particularly is look at aircraft, look at semiconductors, look at computers. Those are areas where the government was involved as an active participant as a direct procurer of the products of that industry when the industry was in its infancy. Now, today I think we have reached a stage in the semiconductors where government purchases, the products that the industry are designing for the government are behind what it is designing for the commercial marketplace, because the government's special requirements for fault tolerance and other sorts of properties differ from those of the commercial marketplace.

In the early years, though, you cannot underestimate the importance of defense procurement in moving along the development of aircraft technology, the development of computer and semiconductor technology.

Now, there are two things to be said about that. One is—I mean I am not necessarily saying we should think of all kinds of defense applications for superconductivity, but it might not be a bad idea to start thinking that way, that that might be a way to lead U.S. firms into thinking of applications and working on applications.

We do know something historically about where government policies succeed and where they fail. Where the government is a direct buyer and utilizer of products it has tended to have a pretty good record. Where the government sits there and tries to design what would be a good product for the commercial marketplace, such as the SST and some other notable examples, it is a colossal failure.

So if there are, I do not know enough about the technology, but if there are reasonable defense applications for superconductivity, then by golly we ought to be pursuing them actively and rapidly. But the idea of, you know, firms getting together horizontally, the whole industry to combine to try to predict the direction of potential commercial application, that is an anathema to the American system, I think. I think it would just be a wrong direction altogether. We ought to let a hundred flowers bloom here and pursue lots of independent directions. Frankly, I cannot really imagine we would not do that. I think we will.

The CHAIRMAN. Well, I have trespassed on your time beyond what I promised you. I told you all you would be out of here by 12. I am really resisting the temptation, which I have already succumbed to a little bit, with such talented people before me, to get you to talk of things and issues that relate to issues far beyond this narrow application, and I apologize for doing that.

I would like to ask you whether or not—you may not be able to come back, but whether you would be available for me to pursue this with you by telephone or written communication. I will not burden you with a lot of work, but there is such a wealth of talent that I think we would all benefit by having more of your views on why we are where we are.

Is it fair, to summarize, is it fair to suggest that other than Mr. Scalise, that the three of you are not particularly enamored with either the need for further changes in the antitrust law or the utility of any further changes in the law? Would that be a fair characterization of your testimony, or would it be stronger?

Mr. LEVIN. That is fair.

Mr. BRODLEY. I would say it is fair, based on the present showing of need. I remain open-minded on the subject. I think that is certainly a fair statement based on any showing of need I have seen.

The CHAIRMAN. And Mr. Scalise, it would be helpful for the record if you could—I am told that you have a plane to catch, so I will not hold you any longer, but if you could possibly make available a statement for the record or an explanation for the record relating specifically to the need——

Mr. SCALISE. OK.

The CHAIRMAN [continuing]. Not the antitrust laws but the need, that would be a helpful thing for us.

Mr. SCALISE. I would be pleased to do that. I should point out that I realize that in many cases here those who have not been closely involved with Sematech have not had the opportunity to see all of the details associated with it, and perhaps once you see that maybe you will understand better the view that I take here. I would be happy to do that.

The CHAIRMAN. I think that would be helpful.

I thank you all very, very much. I know it is an inconvenience for you to come, but it has been very worthwhile for us and I appreciate the input.

The hearing is adjourned. Thank you.

[Whereupon, at 12:20 p.m., the committee was adjourned.]

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